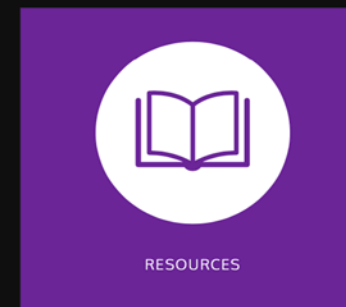
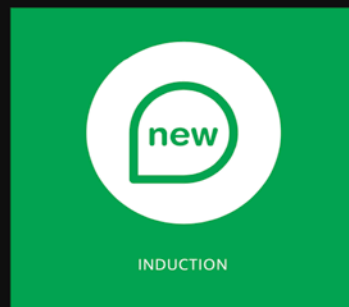


APPENDICES



+ MORE

CATCH UP ON FLEET



FLEET STRATEGIC PLAN



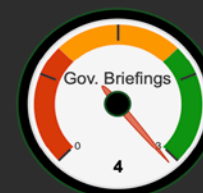
FLEET ALTMETRIC



ACCESS DCA EVENTS



KPI FOCUS



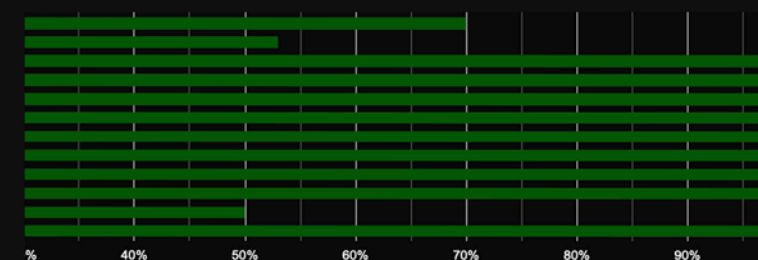
UPCOMING GRANT DEADLINE:

[FLEET Carer's Grant](#)

The Centre recognises that members with caring / family responsibilities face inequitable hurdles to participating in professional activities such as attending a conference or workshop. Applications can be submitted anytime. A maximum of \$2,000 can be offered to all FLEET members with family/caring responsibilities. Example of support can include, but not limited to:

- Travel expenses for depending children / carer to come with you
- Costs associated with alternative arrangement for childcare / care-at-home while you are away

More Prizes, Awards and Grants [opportunities here.](#)



A2 BOARDS AND COMMITTEES

A4 PRESENTATIONS

A26 FLEET-ORGANISED EVENTS

A28 OUTREACH ACTIVITIES

A35 HOME SCIENCE

A40 MEMBERS IN THE MEDIA

FLEET MEMBER INVOLVED	BOARD / COMMITTEE TYPE	DESCRIPTION
Jared Cole	Advisory board	Quantum Advisory Victoria
Francesca Iacopi	Advisory board	EU Horizon 2020 CHALLENGE, "3C-SiC Hetero-epitaxiALLY grown on silicon compliant substrates and 3C-SiC substrates for sustainNable wide-band-Gap powEr devices"
Elena Ostrovskaya	Advisory board	AVS Quantum Science
Oleg Sushkov	Advisory board	Member of the Asia-Pacific Workshop Committee
Elena Ostrovskaya	Conference Chair and Organising Committee	ICSCE10 - International Conference on Spontaneous Coherence in Excitonic Systems 2020
Tich-Lam Nguyen, Matthew Davis, Yuerui Lu	Conference Organising Committee	ICSCE10 - International Conference on Spontaneous Coherence in Excitonic Systems 2020
Elena Ostrovskaya	Conference Program Committee	20th International Conference on Physics of Light-Matter Coupling (PLMCN 2019)
Jeff Davis	Conference Program Committee	Ultrafast Phenomena and Nanophotonics symposium at Photonics West
Elena Ostrovskaya	Conference Program Committee	44th Australian Conference on Optical Fibre Technology (ACOFT) and the Australian Conference on Optics Lasers and Spectroscopy (ACOLS), run within the Australian New Zealand Conference on Optics and Photonics (ANZCOP)
Elena Ostrovskaya	Conference Program Committee	14th Pacific Rim Conference on Lasers and Electro-Optics (CLEO Pacific Rim, CLEO-PR 2020)
Xiaolin Wang	Conference Program Committee	2019 International Symposium on Future Materials
Qiaoliang Bao	Journal editorial board	Nature Publishing Journal: 2D Materials and Applications
Jan Seidel	Journal editorial board	Advanced Electronic Materials (Wiley)
Xiaolin Wang	Journal editorial board	Scientific Report
Kourosh Kalantar-zadeh	Journal editorial board	Advanced Materials Technologies
Kourosh Kalantar-zadeh	Journal editorial board	ACS Applied Nano Materials
Kourosh Kalantar-zadeh	Journal editorial board	ACS Nano - Editorial Advisory Board member of the journal
Matthew Davis	Journal editorial board	Physical Review Letters
Elena Ostrovskaya	Journal editorial board	Scientific Reports
Matthew Davis	Journal editorial board	SciPost Physics
Matthew Davis	Journal editorial board	European Journal of Physics D

FLEET MEMBER INVOLVED	BOARD / COMMITTEE TYPE	DESCRIPTION
Chris Vale	Professional society committee	Atomic and Molecular Physics (ATMOP) topical group, Australian Institute of Physics
Francesca Iacopi	Professional society committee	IEEE Electron Devices Society, Electronic Materials sub-committee
Francesca Iacopi	Professional society committee	Publications Committee of the Materials Research Society, PA (USA), New Publications Products Subcommittee
Jan Seidel	Scientific advisory committee	International Workshop on Topological Structures in Ferroc Materials, Scientific Advisory Committee
Meera Parish	Scientific advisory committee	Scientific committee of the BEC Conference series
Oleg Sushkov	Scientific advisory committee	Member of International Advisory Committee for the Conference "Strongly correlated electron systems, 2019", Okayama, Japan.
David Cortie	Scientific advisory committee	Australian Neutron Beam Users Group
Tich-Lam Nguyen	University Committee	Monash School of Physics and Astronomy Equity, Diversity and Inclusion Committee
Carlos Kuhn	University Committee	Culture, Accessibility and Diversity workgroup; FSET Diversity & Inclusion committee
Jan Seidel	University Committee	UNSW Academic Board
Jeff Davis	University Committee	SAGE steering committee
Elena Ostrovskaya	University Committee	College of Science Research Committee, The Australian National University
Errol Hunt	University Committee	Monash School of Physics and Astronomy Publicity Committee

WELCOME TO THE FLEET KPI REPORTING TOOL

Configure Anonymous Introduction

It is a requirement of the ARC to track the progress of the Centre's Key Performance Indicators (KPIs).
Please enter your outputs under one of the headings below.

Personnel

Employment
Students

Add User Account
Your Employment

New members need to be added by the centres Node Administrators.

[Add Your Contributions](#)

[View All Results](#)

Research Outputs

Presentations
Publications
Provisional patents
Press releases

Publications include journal articles, book chapters and conference papers.

[Add Your Contributions](#)

[View All Results](#)

Education, Training and Outreach

Education & training
Mentoring programs
Organised workshops & seminars
Outreach

To be reported by member involved.

[Add Your Contributions](#)

[View All Results](#)

Partnership Development

Travel
Collaborations
In-bound visitors

[Add Your Contributions](#)

[View All Results](#)

Member Achievements

Awards and Grants
Media
Board and Committee Positions

[Add Your Contributions](#)

[View All Results](#)

Financial KPIs

In-Kind Contributions
Equipment

[Add Your Contributions](#)

[View All Results](#)

Screen-shot of FLEET member portal

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Chemical solution deposition derived bismuth ferrite thin films with excellent performances	Peggy Qi Zhang	Research seminar at Hubei University	China	6 January 2019	Research Seminar	*
2D ferromagnetism and spintronic devices based on van der Waals heterostructures	Lan Wang	2019 International Symposium on Future Materials, Wollongong	Australia	9 January 2019	Conference Presentation	*
Negative mass effects: polariton vs atomic superfluid	David Colas	Research Seminar Université Clermont Auvergne	France	9 January 2019	Research Seminar	*
Quantum impurities	Jesper Levinsen, Meera Parish	Research seminar at IQOQI	Austria	10 January 2019	Research Seminar	*
Microscopic description of exciton-polaritons	Jesper Levinsen	The ICAM-NCTS Annual Meeting and Frontiers of Condensed Matter Workshop	Taiwan, Province of China	15 January 2019	Poster	*
Dynamics of quantum impurities	Meera Parish	The ICAM-NCTS Annual Meeting and Frontiers of Condensed Matter Workshop	Taiwan, Province of China	17 January 2019	Conference Presentation	*
Modelling the fabrication and performance of Josephson junctions - design tools for a quantum computer	Jared Cole	OpenSuperQ kick-off meeting	Germany	18 January 2019	Research Workshop / Symposium	*
Functional topological structures in complex oxides	Jan Seidel	Electronic Materials and Applications 2019 (EMA-19), Orlando	United States	22 January 2019	Invited Lecture	*
Josephson junction arrays: simple circuits, complicated physics	Jared Cole	Departmental Seminar - ETH	Switzerland	22 January 2019	Research Seminar	*
2D ferromagnetism and spintronic devices based on van der Waals heterostructures	Lan Wang	The 2019 International Symposium on Future Materials	Australia	31 January 2019	Research Workshop / Symposium	
2D Materials photonics and optoelectronic device applications	Qiaoliang Bao	The 2019 International Symposium on Future Materials	Australia	31 January 2019	Research Workshop / Symposium	
The many unexpected physical properties in WTe_2	Feixiang Xiang	The 2019 International Symposium on Future Materials	Australia	31 January 2019	Research Workshop / Symposium	
Topological materials for low-energy electronics	Michael Fuhrer	The 2019 International Symposium on Future Materials	Australia	31 January 2019	Research Workshop / Symposium	

* indicates invited presentations to international research community

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Liquid metals for creating two-dimensional materials	Kourosh Kalantar-zadeh	The 2019 International Symposium on Future Materials	Australia	1 February 2019	Research Workshop / Symposium	
Triangular lattices in magnetic fields	Zeb Krix	Wagga 2019: The 43rd Annual Condensed Matter and Materials Meeting	Australia	4 February 2019	Poster	
Probing topological phase transition using quantum transport	Semonti Bhattacharyya	Wagga 2019: The 43rd Annual Condensed Matter and Materials Meeting	Australia	5 February 2019	Conference Presentation	
Impurities in quantum matter	Jesper Levinsen	Wagga 2019: The 43rd Annual Condensed Matter and Materials Meeting	Australia	6 February 2019	Conference Presentation	
Strong effect of spin-charge correlated disorder on transport in a 2D massive Dirac metal	Aydin Keser	Wagga 2019: The 43rd Annual Condensed Matter and Materials Meeting	Australia	7 February 2019	Conference Presentation	*
2D ferromagnetism and spintronic devices based on van der Waals heterostructures, International	Lan Wang	9th International Conference on Advanced Materials and Nanotechnology (AMN9)	New Zealand	8 February 2019	Conference Presentation	*
Imaging single realisations of exciton-polariton condensation	Eliezer Estrecho	Wagga 2019: The 43rd Annual Condensed Matter and Materials Meeting	Australia	8 February 2019	Conference Presentation	
Grand design of new materials and physical properties	Xiaolin Wang	2019 International Conference on Nanospace Materials -	Australia	10 February 2019	Conference Presentation	*
Organic nanostructures on surfaces: Towards nanoscale control of interfacial electronic properties	Agustin Schiffrin	9th International Conference on Advanced Materials and Nanotechnology (AMN9)	New Zealand	12 February 2019	Conference Presentation	*
Superconductivity and quantum materials	David Cortie	Defense Innovation Network : Quantum technologies	Australia	13 February 2019	Presentation to NGOs / Professional organisations	
Topological materials for low-energy electronics	Michael Fuhrer	9th International Conference on Advanced Materials and Nanotechnology (AMN9)	New Zealand	13 February 2019	Conference Presentation	*
Towards topological quantum computing: demystifying the first 1D subband	Karina Hudson	9th International Conference on Advanced Materials and Nanotechnology (AMN9)	New Zealand	13 February 2019	Conference Presentation	*

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
The materials science of Josephson junctions: modelling their formation and electrical response from an atomistic point of view	Jared Cole	European Quantum Technology Conference	France	19 February 2019	Conference Presentation	*
Microscopic models of TLS: atomic structure and phonons	Jared Cole	Atomic tunneling Systems and fluctuating Spins interacting with superconducting Qubits	Germany	28 February 2019	Research Workshop / Symposium	*
Low-energy electronics research at FLEET	Michael Fuhrer, Tich-Lam Nguyen, Kristian Helmerson, Qiaoliang Bao	Technical briefing to DLR	Australia	28 February 2019	Technical Briefing - to government / industry	
Hole spins in quantum wires and quantum dots	Alex Hamilton	APS March Meeting 2019	United States	4 March 2019	Conference Presentation	*
Interaction driven effects in trapped exciton-polariton Bose-Einstein condensates	Maciej Pieczarka	Seminar of Advanced Semiconductor Research Methods	Poland	5 March 2019	Research Seminar	*
0.7 anomaly, spin-mixing and emergent spin gap in quantum point contacts with strong spin-orbit interaction	Karina Hudson	American Physical Society March Meeting 2019	United States	6 March 2019	Conference Presentation	*
Strain and magnetic field-induced spin-structure transitions in multiferroic BiFeO ₃	Daniel Sando	Workshop on Nuclear Resonance Scattering (ESRF)	France	11 March 2019	Poster	*
The future of electronics: Beyond the end of Moore's law	Carlos Claiton Noschang Kuhn, Meera Parish, Rebecca Orrell-Trigg, Dianne Ruka, Errol Hunt	The Royal Society of Victoria	Australia	14 March 2019	Presentation to NGOs / Professional organisations	
Evolution of large scale flow from turbulence in a two-dimensional superfluid	Kristian Helmerson	Quantum Turbulence: Cold Atoms, Heavy Ions, and Neutron Stars	United States	28 March 2019	Research Workshop / Symposium	*
Enstrophy cascade in 2D quantum turbulence	Matt Reeves	Quantum Turbulence: Cold Atoms, Heavy Ions, and Neutron Stars	United States	29 March 2019	Conference Presentation	*
Grand design of new materials and physical properties	Xiaolin Wang	Research seminar at Beijing University Science and Technology	Australia	1 April 2019	Research Seminar	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Quantum depletion of a trapped nonequilibrium exciton-polariton condensate	Maciej Pieczarka	Universal Themes of Bose-Einstein Condensation 2019	United States	2 April 2019	Conference Presentation	*
Topological materials for low-energy electronics	Michael Fuhrer	University of Melbourne School of Physics Colloquium	Australia	2 April 2019	Colloquium	
0.7 anomaly, spin-mixing and emergent spin gap in quantum point contacts with strong spin-orbit interaction	Karina Hudson	Seminar at Microsoft Station Q, University of Sydney	Australia	9 April 2019	Research Seminar	
Atomically thin Na ₃ Bi: A platform for topological electronics	Michael Fuhrer	2019 International Forum on Graphene in Shenzhen	China	13 April 2019	Conference Presentation	*
Printing 2D piezoelectric layers using liquid metal reaction media	Kouros Kalandar-zadeh	Materials Research Society (MRS) Spring Meeting	United States	24 April 2019	Conference Presentation	*
Hole spin qubits in Si: coherence and control	Dimi Culcer	Research seminar at University of Science and Technology of China	China	6 May 2019	Colloquium	*
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Research seminar at Tokyo Institute of Technology	Japan	11 May 2019	Research Seminar	*
FLEET overview	Michael Fuhrer, Errol Hunt	Briefing Victorian Government (Department of Jobs, Precincts and Regions)	Australia	13 May 2019	Technical Briefing - to government / industry	
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	FLEET wide colloquium	Australia	16 May 2019	Colloquium	
Majorana fermions in semiconductor nanowires and a new signature for the opening of a spin-gap	Alex Hamilton	Tsinghua-UNSW mini-workshop on topology, superconductivity and spin-orbit physics	China	17 May 2019	Research Workshop / Symposium	*
Towards the understanding of the many unexpected physical properties of WTe ₂	Feixiang Xiang	Tsinghua-UNSW mini-workshop on topology, superconductivity and spin-orbit physics	China	17 May 2019	Research Workshop / Symposium	*
Quantum kinetic theory of magneto-transport in topological materials	Dimi Culcer	Physics Colloquium at the University of Melbourne	Australia	21 May 2019	Colloquium	
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	Visit to laboratory of Dr Shintaro Yasui	Japan	23 May 2019	Research Seminar	*
Probing quantum phase transition and decoherence in topological insulators with universal conductance fluctuations	Semonti Bhattacharyya	Research seminar at UNSW	Australia	24 May 2019	Research Seminar	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Ultra-high figure-of-merit in carbon doped Cu ₂ Se	Xiaolin Wang	The 11th International Conference on High-Performance Ceramics	China	24 May 2019	Conference Presentation	*
Quantum depletion of a non-equilibrium exciton-polariton condensate	Maciej Pieczarka	TERAMETANANO International Conference on Terahertz Emission, Metamaterials and Nanophotonics	Italy	27 May 2019	Conference Presentation	*
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	Visit to lab of Dr. Daisuke Kan	Japan	28 May 2019	Research Seminar	*
Bosonic condensate of exciton polaritons: a quantum system out of equilibrium	Elena Ostrovskaya	Monash Physics Director's Colloquium	Australia	29 May 2019	Colloquium	
Probing topological phase transition with universal conductance fluctuations	Semonti Bhattacharyya	Research seminar at RMIT University	Australia	7 June 2019	Research Workshop / Symposium	
Low-energy electronics research at FLEET	Michael Fuhrer, Dianne Ruka	Technical briefing to VIC Oakleigh MP Steve Dimopoulos	Australia	11 June 2019	Technical Briefing - to government / industry	
Microscopic description of exciton-polaritons	Jesper Levinsen	Few-body 2019	China	13 June 2019	Conference Presentation	*
Bosonic condensation of hybrid polaritons in a monolayer MoSe ₂ -GaAs Tamm-device	Matthias Wurdack	ICP2DC4 - International Conference on Physics of 2D crystals 2019	China	14 June 2019	Conference Presentation	*
Graphene, the New Wonder Material!	Shao-Yu Chen	JMSS Immersion day	Australia	14 June 2019	Public Lecture	
2D ferromagnetism and spintronic devices based on van der Waals heterostructures	Lan Wang	Workshop on Surface Science and Technology 2019	Australia	18 June 2019	Conference Presentation	
Edge transport in the quantum spin Hall insulator few-layer Na ₃ Bi	Michael Fuhrer	Workshop on Surface Science and Technology 2019	Australia	18 June 2019	Conference Presentation	
Zero resistance materials and technologies	Xiaolin Wang	Workshop on Surface Science and Technology 2019	Australia	18 June 2019	Research Workshop / Symposium	
FLEET overview on mining ICT energy to enable future computing	Alex Hamilton, Daisy Qingwen Wang	Briefing to Mr Peter Polous Senior Adviser for NSW Minister Kean, Minister for Energy and Environment	Australia	19 June 2019	Technical Briefing - to government / industry	

* indicates invited presentations to international research community

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Functional organic nanostructures on surfaces: Towards atomically designed electronics and catalysis	Agustin Schiffrin	Wollongong Surface Science and Technology Workshop	Australia	19 June 2019	Research Workshop / Symposium	
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	Euro Intelligent Materials	Germany	19 June 2019	Conference Presentation	*
Topological structures as nanoscale functional elements	Jan Seidel	Department Colloquium, Department of Physics, TU Dresden, Germany	Germany	20 June 2019	Invited Lecture	*
Topological structures as nanoscale functional elements	Jan Seidel	TOPO2019, International Workshop on Topological Structures in Ferroic materials, Prague	Czech Republic	21 June 2019	Invited Lecture	*
Hourglass magnetic dispersion and nature of the spin liquid phase in cuprates	Oleg Sushkov	Superstripes2019 Quantum physics in Complex Matter: Superconductivity, Magnetism and Ferroelectricity	Italy	26 June 2019	Conference Presentation	*
Topological materials for low-energy electronics	Michael Fuhrer	Seminar at NTU	Singapore	26 June 2019	Research Seminar	*
Atomically thin Na ₃ Bi: A platform for topological electronics	Michael Fuhrer	10th International Conference on Materials for Advanced Technologies	Singapore	27 June 2019	Conference Presentation	*
Dynamics of vortex cluster formation in superfluid experiments	Matthew Davis	Seminar at Swinburne	Australia	27 June 2019	Research Seminar	
Single realizations of exciton-polariton Bose-Einstein condensates	Eliezer Estrecho	69th Lindau Nobel Laureate Meeting	Germany	1 July 2019	Poster	*
Connecting superfluid dynamics experiments with the point vortex model in two dimensions	Matthew Davis	Vortex dynamics, turbulence and related phenomena in quantum fluids	Brazil	4 July 2019	Conference Presentation	*
Two-dimensional perovskite nanomaterials for optoelectronic applications	Qingdong Ou	International Conference on Nanomaterials & Atomaterials Science and Applications (ICNASA 2019)	Australia	4 July 2019	Conference Presentation	*

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Formation of nonlinear X-waves in condensed matter systems	David Colas	International Conference on Physics of Light-Matter Coupling in Nanostructures	Russian Federation	5 July 2019	Conference Presentation	*
Recreating field of liquid metals: from bulk to two dimensional materials	Kouros Kalandar-zadeh	Public talk at the University of Strasbourg	France	5 July 2019	Research Seminar	*
Connecting superfluid dynamics experiments with the point vortex model in two dimensions	Matthew Davis	27th International Conference on Statistical Physics	Argentina	8 July 2019	Conference Presentation	*
Impurity dynamics at finite temperature	Weizhe Liu	The International Conference on Laser Spectroscopy	New Zealand	9 July 2019	Poster	*
Polaritonics and optoelectronics of 2D materials with infrared nano-imaging	Shivananju Bannur Nanjunda, Qingdong Ou	Australian Nanoscale Analytics Workshop	Australia	11 July 2019	Research Workshop / Symposium	
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Research seminar at RIKEN	Japan	11 July 2019	Research Seminar	*
Quantum Lifshitz criticality in a frustrated two-dimensional XY model	Oleg Sushkov	Highlights of condensed matter physics	China	12 July 2019	Conference Presentation	*
Manipulation of nanoscale domain transitions in ferroelectric thin films	Vivasha Govinden	ISAF	Switzerland	15 July 2019	Poster	*
Optical functionalities of ferroelectric oxide thin films	Daniel Sando	IEEE International Symposium on Applications of Ferroelectrics (ISAF)	Switzerland	15 July 2019	Conference Presentation	*
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	IEEE International Symposium on Applications of Ferroelectrics (ISAF)	Switzerland	16 July 2019	Conference Presentation	*
Low-energy electronics research at FLEET	Lina Sang, Xiaolin Wang, David Cortie, Weiyao Zhao, Zhi Li	Briefing to Mr Paul Scully, Wollongong MP (Labor) and shadow Minister of Natural Resources	Australia	18 July 2019	Technical Briefing - to government / industry	
BAE Factory of the Future	Francesca Iacopi	Technical briefing BAE	Australia	23 July 2019	Technical Briefing - to government / industry	
FLEET Research Theme II: Approaches towards polariton-condensation and superfluidity in TMDC-monolayers	Matthias Wurdack	FLEET wide colloquium	Australia	25 July 2019	Research Seminar	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Functional organic nanostructures on surfaces: Towards atomically designed optoelectronics and catalysis	Agustin Schiffrin	International Symposium on Energy Conversion and Storage Materials	Australia	1 August 2019	Conference Presentation	*
New electronics to meet the computing energy challenge	Nagarajan Valanoor	Joint Institution Lecture Series	Australia	6 August 2019	Presentation to NGOs / Professional organisations	
Evolution of large scale flow from turbulence in a two-dimensional superfluid	Kristian Helmerson	Quantum Fluids and Solids conference	Canada	10 August 2019	Conference Presentation	*
Hole quantum dots	Dimi Culcer	Research seminar at RIKEN	Japan	11 August 2019	Research Seminar	*
Topological structures as nanoscale functional elements	Jan Seidel	2019 Asia-Pacific PFM Workshop, Seoul, South Korea	Korea, Republic of	11 August 2019	Public Lecture	*
Microscopic description of exciton-polaritons	Jesper Levinsen	Research seminar at Macquarie University	Australia	13 August 2019	Research Seminar	
A universal motorized set-up for assembling van der Waals heterostructures	Semonti Bhat-tacharyya	FLEET ECR Workshop	Australia	15 August 2019	FLEET ECR workshop presentation	
Engineering low-loss polaritons in layered MoO ₃	Qingdong Ou	FLEET ECR Workshop	Australia	15 August 2019	Research Workshop / Symposium	
Epitaxy of multiferroic and topological oxides	Daniel Sando	FLEET ECR Workshop	Australia	15 August 2019	Conference Presentation	
Long-lived indirect excitons in monolayer WSe ₂	Shao-Yu Chen	FLEET strategic research meeting 2019	Australia	15 August 2019	Research Workshop / Symposium	
Manipulation of nanoscale domain transitions in ferroelectric thin films	Vivasha Govinden	FLEET ECR Workshop	Australia	15 August 2019	Poster	
Progress Report - metal oxides	Vivasha Govinden	FLEET ECR Workshop	Australia	15 August 2019	Conference Presentation	
Transport properties of a two-dimensional electron gas with spin-orbit coupling	Yik Kheng Lee	FLEET ECR Workshop	Australia	15 August 2019	Poster	
Approaches towards polariton condensation in TMDC-monolayers	Matthias Wurdack	FLEET ECR Workshop	Australia	16 August 2019	Research Workshop / Symposium	
Nonequilibrium superfluids	Matt Reeves	FLEET Strategic Research Meeting	Australia	16 August 2019	Research Workshop / Symposium	
Side-gating of two dimensional electron gas in LaAlO ₃ /SrTiO ₃ heterostructure	Fan Ji	FLEET ECR Workshop	Australia	16 August 2019	Research Workshop / Symposium	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
The materials science of Josephson junctions: modelling their formation and electrical response from an atomistic point of view	Jared Cole	10th Pacific Rim International Conference on Advanced Materials and Processing	China	19 August 2019	Conference Presentation	*
Tight binding models for the two-dimensional allotropes of bismuth	Jackson Smith	PRICM10 - 10th Pacific Rim International Conference on Advance Materials and Processing	China	20 August 2019	Conference Presentation	*
Topological insulators for low-energy electronics and advanced optoelectronics	Zengji Yue	UOW-USTC Joint Research Workshop	Australia	20 August 2019	Conference Presentation	
Emerging disruptive technology assessment symposium (EDTAS) interview for paper commissioned by the DE Technologies, DST	Francesca Iacopi	Technical briefing DST	Australia	21 August 2019	Technical Briefing - to government / industry	
The materials science of Josephson junctions: modelling their formation, imperfections and electrical response from an atomistic point of view	Jared Cole, Jackson Smith	Departmental Seminar - University of Taijin	China	26 August 2019	Research Seminar	*
Topological insulating states in semiconductor based artificial graphene	Oleg Sushkov	8th International Conference on New Frontiers in Physics, ICNFP2019	Greece	26 August 2019	Conference Presentation	*
Scrutinise year 12 physics assessment in Queensland for 2020	Matthew Davis	Physics scrutiny panel, Queensland Curriculum and Assessment Authority	Australia	29 August 2019	Technical Briefing - to government / industry	
Dynamics of vortex cluster formation in superfluid experiments	Matthew Davis	Quantum Menorca	Spain	5 September 2019	Poster	*
Why outreach?	Dianne Ruka	ANSTO Young Researchers Conference	Australia	6 September 2019	Research Workshop / Symposium	
Exciton-polariton condensation in optical traps and the saga of polariton-polariton interactions	Elena Ostrovskaya	International Conference on Laser Spectroscopy (ICOLS19)	New Zealand	7 September 2019	Conference Presentation	*
Ultrafast switching of Floquet-Bloch states in monolayer MoS ₂	Jeff Davis	Conference on Fundamental Optical Processes in Semiconductors	Canada	8 September 2019	Conference Presentation	*

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Dynamics of vortex cluster formation in superfluid experiments	Matthew Davis	BEC 2019 - Bose-Einstein Condensation, Frontiers in Quantum Gases	Spain	9 September 2019	Poster	*
Hourglass magnetic dispersion and nature of the spin liquid phase in cuprates	Oleg Sushkov	VII Euro-Asian Symposium "Trends in Magnetism"	Russian Federation	9 September 2019	Research Workshop / Symposium	*
Microscopic description of exciton-polaritons	Jesper Levinsen	BEC 2019 - Bose-Einstein Condensation, Frontiers in Quantum Gases	Spain	10 September 2019	Poster	*
Evolution of large scale flow from turbulence in a two-dimensional superfluid	Kristian Helmerson	BEC 2019 - Bose-Einstein Condensation, Frontiers in Quantum Gases	Spain	12 September 2019	Conference Presentation	*
Microscopic description of exciton-polaritons	Jesper Levinsen	Quantum Menorca	Spain	13 September 2019	Conference Presentation	*
Artificial graphene theory progress	Zeb Krix	UNSW research seminar	Australia	16 September 2019	Research Seminar	
Grand design of new materials and physical properties	Xiaolin Wang	Research seminar at Xian Jiaotong University	China	17 September 2019	Research Seminar	*
FLEET and materials for low-energy electronics	Tich-Lam Nguyen	Monash Energy Conference	Australia	18 September 2019	Technical Briefing - to government / industry	
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Research seminar at Tsinghua University	China	18 September 2019	Research Seminar	*
Understanding spin textures in (110)-oriented BiFeO ₃ thin films	Daniel Sando	APCTP workshop on multiferroics	Taiwan, Province of China	21 September 2019	Conference Presentation	*
Impurities in quantum matter	Meera Parish	Research seminar at LENS Florence	Italy	23 September 2019	Research Seminar	*
Electronic transport in topological insulators for low-energy electronics	Zengji Yue	IUMRS-ICA, 20th International Union of Materials Research Societies Conference	Australia	24 September 2019	Conference Presentation	*
Oxidation of monolayer WS ₂ in ambient is a photoinduced process	Michael Fuhrer	Graphene Week	Finland	24 September 2019	Conference Presentation	*
Grand design of new materials and new properties	Xiaolin Wang	2019 International Forum on Advanced Materials (IFAM)	China	25 September 2019	Conference Presentation	*
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Research seminar at Beijing Computational Science Research Center	China	25 September 2019	Research Seminar	*

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Atomically thin Na ₃ Bi for topological electronics	Michael Fuhrer	Graphene Week	Finland	27 September 2019	Conference Presentation	*
Functional multiferroic domain walls and phase boundaries	Jan Seidel	2019 Asia-Pacific Conference on Theoretical Physics Workshop on Multiferroics, National Chiao Tung University, Taiwan	Taiwan, Province of China	29 September 2019	Research Seminar	*
Many-body correlations of the excitonic bound-state in high-quality monolayer tungsten diselenide	Shao-Yu Chen	RPGR 2019 - 11th annual Recent Progress in Graphene and Two-dimensional Materials Research Conference	Japan	7 October 2019	Conference Presentation	*
Engineering the 2D hole gas on diamond by surface transfer doping	Dongchen Qi	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Exciton polariton dynamics measured with ultrafast coherent 2D spectroscopy	Jeff Davis	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Exciton thermalization in WSe ₂ monolayers	Maciej Pieczarka	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Microscopic description of exciton-polaritons	Jesper Levinsen	VULCAN	Australia	10 October 2019	Research Workshop / Symposium	
Predicting electronic structure of topological materials	Nikhil Medhekar	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Super-transport of coherent excitons in atomically thin organic semiconductors at the 2D quantum limit	Yuerui Lu	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Synthesis of liquid metal derived 2D materials - capabilities of the RMIT Node	Torben Daeneke	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Towards all dielectric optical microcavities for polariton research in 2D atomically thin materials	Matthias Wurdack	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Tunneling and fluctuating electron-hole Cooper pairs in double bilayer graphene	Dmitry Efimkin	FLEET Research Theme 2 meeting	Australia	10 October 2019	Research Workshop / Symposium	
Beyond mean-field theory for exciton-polariton systems	Meera Parish	FLEET Research Theme 2 meeting	Australia	11 October 2019	Research Workshop / Symposium	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Dispersion engineering in atomic and polariton systems	David Colas	FLEET Research Theme 2 meeting	Australia	11 October 2019	Research Workshop / Symposium	
Exciton-polariton propagator with application to electron-polariton scattering	Guangyao Li	FLEET Research Theme 2 meeting	Australia	11 October 2019	Research Workshop / Symposium	
Probing contact interactions of exciton-polaritons	Maciej Pieczarka	FLEET Research Theme 2 meeting	Australia	11 October 2019	Research Workshop / Symposium	
Probing superfluidity in exciton-polariton systems	Eliezer Estrecho	FLEET Research Theme 2 meeting	Australia	11 October 2019	Research Workshop / Symposium	
Semiconductor holes: More spin for quantum information and quantum technologies	Alex Hamilton	Technical briefing to IMEC	Belgium	11 October 2019	Technical Briefing - to government / industry	*
The origin of hour-glass magnetic dispersion in underdoped cuprate superconductors	Oleg Sushkov	Max Planck Institute for Solid State Research Annual Symposium 2019	Germany	15 October 2019	Research Workshop / Symposium	*
Electric field control of molecular charge state in a 2D organic nanoarray	Dhannesh Gopalakrishnan	SPICE 2019 Workshop	Germany	17 October 2019	Research Workshop / Symposium	*
Polariton condensates: quantum fluid of light and matter	Eliezer Estrecho	21st SPVM National Physics Conference & 2019 International Conference on Advanced Functional Materials and Nanotechnology	Philippines	17 October 2019	Conference Presentation	*
Impurities in quantum matter	Jesper Levinsen	Colloquium at the University of Melbourne	Australia	22 October 2019	Colloquium	
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	ICTP Conference on Signatures of Topology in Condensed Matter	Italy	22 October 2019	Conference Presentation	*
Towards 2D organometallic nanostructures with topological electronic properties	Dhannesh Gopalakrishnan	Research seminar at TUM, Garching, Munich	Germany	24 October 2019	Research Seminar	*
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Research seminar at Universita Roma Tre	Italy	28 October 2019	Research Seminar	*
Ultra-high figure-of-merit in carbon doped Cu ₂ Se	Xiaolin Wang	The 13th Pacific Rim Conference of Ceramic Societies	Japan	28 October 2019	Conference Presentation	*

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Observation of quantum depletion in a nonequilibrium exciton-polariton condensate	Maciej Pieczarka	48th International School & Conference on the Physics of Semiconductors "Jaszowiec 2019"	Poland	6 November 2019	Conference Presentation	*
Resonant photovoltaic effect in doped magnetic topological materials	Dimi Culcer	Kyushu University	Japan	13 November 2019	Colloquium	*
Topological defect transitions in ultrathin ferroelectric films	Vivasha Govinden	HDR seminar in UNSW School of Materials Science and Engineering (MSE)	Australia	14 November 2019	Research Seminar	
Antisymmetric magnetoresistance in Fe_3GeTe_2 /graphite/ Fe_3GeTe_2 van der Waals heterostructures	Lan Wang	The fourth international conference on new materials and chemical industry (NMCI 2019)	China	15 November 2019	Conference Presentation	*
Lateral superlattice in GaAs: How to make "anti-graphene"	Daisy Qingwen Wang	ISNTT2019	Japan	20 November 2019	Poster	*
Catalytic marvels of liquid metals	Kourosh Kalantar-zadeh	IYPT2019@UNSW Celebrating International Year of Period Table of Elements	Australia	25 November 2019	Public Lecture	
Charge transport in nanostructures: filling the void between ab-initio and effective models	Jared Cole	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	25 November 2019	Research Workshop / Symposium	
Microscopic theory of exciton-polaritons	Meera Parish	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	25 November 2019	Conference Presentation	
Paratacamite polymorphs: How different symmetries affect the magnetic interactions and ground state properties of 2D magnets	Kirrily Rule	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	25 November 2019	Research Workshop / Symposium	
Quantum depletion of an exciton-polariton condensate	Elena Ostrovskaya	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	25 November 2019	Conference Presentation	*
Hydrodynamic electron flow in 2D semiconductor heterostructures	Aydin Keser	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	26 November 2019	Research Workshop / Symposium	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Probing the spin-orbit interaction in GaAs using quantum point contacts	Karina Hudson	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	26 November 2019	Conference Presentation	*
Electromagnetic manipulation of liquid metals	Xiaolin Wang	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	27 November 2019	Research Workshop / Symposium	
Antisymmetric magnetoresistance in Fe_3GeTe_2 /graphite/ Fe_3GeTe_2 van der Waals heterostructures	Lan Wang	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	28 November 2019	Conference Presentation	*
ARPES study of Pb thin film on topological insulator	Chi Xuan Trang	1st ARPES@ANSTO Workshop 2019	Australia	28 November 2019	Research Workshop / Symposium	
Cobalt Intercalation beneath corrugated graphene	Iolanda Di Bernardo	1st ARPES@ANSTO Workshop 2019	Australia	28 November 2019	Research Workshop / Symposium	
Introduction to the Toroidal Analyser	Anton Tadich	1st ARPES@ANSTO Workshop 2019	Australia	28 November 2019	Research Workshop / Symposium	
p-type surface transfer doping of epitaxial graphene using MoO_3 revealed by synchrotron-based ARPES	Dongchen Qi	1st ARPES@ANSTO Workshop 2019	Australia	28 November 2019	Research Workshop / Symposium	
Probing quantum phase transition and decoherence in topological insulators with universal conductance	Semonti Bhattacharyya	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	28 November 2019	Research Workshop / Symposium	
Signature of helical transport in quantum spin Hall insulator ultrathin Na_3Bi	Michael Fuhrer	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	28 November 2019	Research Workshop / Symposium	
Spintronics based on 2D ferromagnetic materials and van der Waals heterostructures	Lan Wang	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	28 November 2019	Research Workshop / Symposium	
Uncovering Berry: The role of topology in the anomalous Hall effect of antiferromagnetic Mn_3Ge and amorphous ferromagnetic $\text{Fe}_x\text{Si}_{(1-x)}$ and $\text{Fe}_y\text{Co}_{(1-y)}\text{Si}$	Julie Karel	Gordon Godfrey Workshop on Spins, Topology and Strong Electron Correlations	Australia	28 November 2019	Research Workshop / Symposium	
Transport properties of a two-dimensional electron gas with spin-orbit coupling	Yik Kheng Lee	AIP Summer Meeting 2019	Australia	4 December 2019	Conference Presentation	

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PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Models for electron transport in the two-dimensional allotropes of bismuth	Jackson Smith	AIP Summer Meeting 2019	Australia	5 December 2019	Conference Presentation	*
Quantum phase slips and electromagnetic duality in quantum circuits	Jared Cole	AIP Summer Meeting 2019	Australia	5 December 2019	Conference Presentation	*
A new phase of a room-temperature multiferroic with giant piezoresponses	Oliver Paull	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
A review on electric-field and ionic electric-field induced superconductivity in 2D materials	Peng Liu	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Coherent dynamics in quantum materials	Rishabh Mishra	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Contact interactions in exciton-polariton condensates	Maciej Pieczarka	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Deterministic switching of ferroelectric bubble nanodomains	Peggy Qi Zhang	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Exciton-polariton propagator with applications	Guangyao Li	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Excitonic states in van der Waals heterostructures	Jack Muir	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
High performance-broadband photo and soft x-ray detectors on CrSiTe ₃ thin films	Yun Li	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
High-resolution ARPES study of a possible engineered topological superconductor	Chi Xuan Trang	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Hydrodynamic electron flow in 2D semiconductor heterostructures	Aydin Keser	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Interplay of Aharonov-Bohm interference and signatures of Majorana fermions	Tommy Bartolo	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Liquid metal chemistry for the synthesis of functional 2D Materials	Torben Daeneke	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Many-body correlation of dielectric screened 2D-excitons in monolayer WSe ₂	Shao-Yu Chen	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Mn ₃ Sn thin films	Wafa Afzal	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Oxidation of WTe ₂ surfaces	Fei Hou	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Oxide epitaxy of persistent spin texture candidate BiInO ₃	Daniel Sando	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Progress on FLEET research	Jan Seidel	FLEET 2019 Annual Workshop	Australia	8 December 2019	Research Workshop / Symposium	
Resonant photovoltaic effect in doped magnetic semiconductors	Pankaj Bhalla	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Signatures of helical edge transport in millimetre-scale thin films of Na ₃ Bi	Golrokh Akhgar, Chang Liu	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Stacking-dependent electronic behavior of Na ₃ Bi	Yuefeng Yin	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Surface acoustic wave mediated synthesis and manipulation of two-dimensional materials	Amgad Rezk	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Surface assisted molecule-molecule hybridization	Marina Castelli	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
The infrared catastrophe in 2D quantum antiferromagnets	Matthew O'Brien	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Tight-binding models for two-dimensional allotropes of bismuth from density-functional theory	Jackson Smith	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Topological fluctuating Cooper pairs in superconductors	Dmitry Efimkin	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Towards all-dielectric monolithic cavities with 2D-materials for room temperature exciton-polariton research	Matthias Wurdack	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Towards the THz time-domain spectroscopy of graphene	Gary Beane, Phat Nguyen	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Ultrasensitive and ultrafast optical biosensors based on 2D materials	Shivananju Bannur Nanjunda	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
Valley separation via trigonal warping	Samuel Bladwell	FLEET 2019 Annual Workshop	Australia	8 December 2019	Poster	
2D TeO ₂ - a novel high mobility wide bandgap semiconductor	Patjaree Aukarasereenont	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
A room-temperature ferroelectric semimetal	Pankaj Sharma	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
A room-temperature ferroelectric semimetal	Pankaj Sharma	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Ab initio study of plasmon-induced direct hot-electron transfer at metal-acceptor interfaces	Priyank Kumar	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Contact-free probe of electronic transport in topologically non-trivial graphene	Mitchell Conway	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Deterministic switching of ferroelectric bubble nanodomains	Peggy Qi Zhang	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Disruption of helical edge states in topological insulators by magnetic impurities	Jesse Vaitkus	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Dynamic Conductivity of nanoscale bubble domains in ferroelectric thin films	Vivasha Govinden	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
EDSR anisotropy of a Ge hole quantum dot	Matthew Rendell	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Engineering artificial topological systems	Daisy Qingwen Wang	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Femtosecond covariance spectroscopy	Jonathan Tollerud	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
FLEET training & mentoring	Dianne Ruka, Matt Davis	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
High-frequency sound in a unitary Fermi gas	Sascha Hoinka	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
In situ monitoring and aligning van der Waals heterostructures by optical spectroscopy	Shao-Yu Chen	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
In-situ hydrostatic pressure induced significant suppression of magnetic relaxation and enhancement of flux pinning in $\text{Fe}_{1-x}\text{Co}_x\text{Se}_{0.5}\text{Te}_{0.5}$ single crystal	Lina Sang	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Interactions in stanene centred vdW trilayers structures of boron nitride and graphene: Effect of mirror symmetry on electronic interaction for use in nanoelectronics	Frank Yun	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Investigating electronic structure of intrinsic magnetic topological insulator: MnBi_2Te_4	Qile Li	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Lateral Superlattice in GaAs: how to make "anti-graphene"	Daisy Qingwen Wang, Oleh Klochan	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Magneto-resistance of topological edge states	Dimi Culcer	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Materials research in the electronics industry	Luigi Colombo	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Modelling 2D organometallic frameworks on surfaces	Bernard Field	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Modelling artificial graphene in a magnetic field	Zeb Krix	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Multidimensional coherent spectroscopy in measuring the dynamics of exciton-polariton system	Tatek Lemma	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Nano-FTIR of thin-layer hBN	Jiong Yang	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Investigating electronic structure of intrinsic magnetic topological insulator: MnBi_2Te_4	Golrokh Akhgar	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Patterning GaAs heterostructures using anodic oxidation towards the fabrication of artificial graphene	Jonatan Ashlea Alava	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Periodic coulomb blockade in single-component 2D molecular nanoarray	Dhaneesh Gopalakrishnan	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Phase diagram in 2DEG with spin orbit coupling	Hong Liu	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Polaritons in two dimensional materials	Babar Shabbir	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Polaritons in van der Waal materials	Babar Shabbir	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Prediction of the spin triplet two-electron quantum dots in Si	Oleg Sushkov	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Probing spin physics in GaAs using quantum point contacts	Karina Hudson	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Progress towards the Australian Gas Microscope	Ivan Herrera Benzaquen	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Pulse duration effects on Floquet-Bloch states in transition metal dichalcogenide monolayers	Stuart Earl	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Quantum theory of a weakly interacting exciton-polariton condensate	Olivier Bleu	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Recent progress on the Toroidal Angle Resolving Electron Energy Analyser	Anton Tadich	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Resonant photovoltaic effect in doped magnetic semiconductors	Pankaj Bhalla	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Self-interference effects in condensed matter systems	David Colas	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Shubnikov-de Hass oscillation in Sm doped topological insulator Bi_2Se_3	Weiyao Zhao	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Side-gating of 2-dimensional electron gas in cross-sectional $\text{LaAlO}_3/\text{SrTiO}_3$	Fan Ji	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Some theoretical results for twisted bilayer graphene near magic angle	Shaffique Adam	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Synthesis and atomic-scale characterization of superconducting van-der-Waals heterostructures	Bent Weber	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
The non-equilibrium Green's function approach, an emerging simulation technique for novel devices	Jesse Vaitkus	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Theme reports: Research theme 1, enabling technologies A & B	Alex Hamilton, Lan Wang, Xiaolin Wang	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Topological insulators, exciton condensates, and charge density waves	Allan MacDonald	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Topological materials - Theme 1 research updates	Nikhil Medhekar	FLEET 2019 Annual Workshop	Australia	9 December 2019	Research Workshop / Symposium	
Towards contacting monolayer TMDC through touch-printed Ga_2O_3 tunnel barriers	Semonti Bhattacharyya, Jackson Wong	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Truncated Airy beam dynamics in wavelet-based representations	David Colas	FLEET 2019 Annual Workshop	Australia	9 December 2019	Poster	
Antisymmetric magnetoresistance in van der Waals Fe_3GeTe_2 /graphite/ Fe_3GeTe_2 trilayer heterostructures	Sultan Albarakati	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Coherent dynamics in strongly correlated materials	Jonathan Tollerud	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Dynamics of impurities in quantum gases	Weizhe Liu	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Excitonic superfluids - Theme 2 research updates	Elena Ostrovskaya	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Light-transformed materials - Theme 3 research updates	Kristian Helmerston	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Precision measurements of elementary excitations in a unitary Fermi gas	Sascha Hoinka	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Quantitative acoustic models for superfluid circuits	Matt Reeves	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Three-dimensional electron-hole superfluidity in a superlattice close to room temperature	David Nielson	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Towards a 2D organic topological insulator	Dhaneesh Gopalakrishnan	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Transport in MoSi ₂ and Mn ₃ Sn	Wafa Afzal, Weiyao Zhao	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Tuning the edge states of topological crystalline insulator bismuthene via substrate effects	Chutian Wang	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
Tutorial: Ultrafast optical techniques	Jeff Davis, Agustin Schiffrin	FLEET 2019 Annual Workshop	Australia	10 December 2019	Research Workshop / Symposium	
FLEET equity & diversity	Elena Ostrovskaya	FLEET 2019 Annual Workshop	Australia	11 December 2019	Research Workshop / Symposium	
FLEET performance progress and preparing for Centre mid-term review 1 July 2020	Tich-Lam Nguyen	FLEET 2019 Annual Workshop	Australia	11 December 2019	Research Workshop / Symposium	
Quantum transport properties at high magnetic fields and pressure-induced superconductivity in layered PtBi ₂	Mingliang Tian	FLEET 2019 Annual Workshop	Australia	11 December 2019	Research Workshop / Symposium	
The MacDiarmid difference: Culture change and impact in a New Zealand Centre of Research Excellence	Justin Hodgkiss	FLEET 2019 Annual Workshop	Australia	11 December 2019	Research Workshop / Symposium	
FLEET outreach	Dianne Ruka, Chris Vale	FLEET 2019 Annual Workshop	Australia	12 December 2019	Research Workshop / Symposium	

PRESENTATION TITLE	SPEAKER	EVENT NAME	COUNTRY	DATE	PRESENTATION TYPE	NOTES
Topological structures as nanoscale functional elements	Jan Seidel	Research seminar at South University of Science and Technology	China	12 December 2019	Research Seminar	*
Topological structures as nanoscale functional elements	Jan Seidel	2019 International Workshop on Atomic Force Microscopy for Advanced Functional Materials	China	13 December 2019	Research Seminar	*
Low-dimensional organic nanostructures on surfaces: Towards atomically designed electronics, optoelectronics and catalysis	Agustin Schiffrin	ANU Seminar	Australia	16 December 2019	Research Seminar	
Lateral Superlattice in GaAs: how to make "anti-graphene"	Oleh Klochan, Daisy Qingwen Wang	NUW Alliance Physics Event	Australia	18 December 2019	Poster	
Towards exciton polariton condensation in atomically thin materials at room temperature	Matthias Wurdack	Research seminar at University of Jena	Germany	19 December 2019	Public Lecture	*
Towards exciton polariton condensation in atomically thin materials at room temperature	Matthias Wurdack	Research seminar at University of Wurtzburg	Germany	22 December 2019	Research Seminar	*
Topological materials for low-energy electronics	Michael Fuhrer	Indian Institute of Science Physics Colloquium	India	31 December 2019	Colloquium	*



Dr Agustin Schiffrin

** indicates invited presentations to international research community*

FLEET ORGANISED WORKSHOP / SEMINAR TITLE	EVENT TYPE	DATES	LOCATION
Lukas M Eng - Near-field THz nanoscopy with novel accelerator-based photon sources	Research seminar	28 February 2019	Sydney, NSW
Madhu Bhaskaran - Oxide-based stretchable devices	Research seminar	5 March 2019	Sydney, NSW
Colin Heikes - Controlling materials for advanced and quantum technologies	Research seminar	19 March 2019	Sydney, NSW
Chris McConville - Quantized electron accumulation at semiconducting surface	Research seminar	25 March 2019	Sydney, NSW
Julie Karel - Using disorder and liquid electrolyte gating to design and control magnetic and electronic properties of materials	Research seminar	7 May 2019	Sydney, NSW
Semonti Bhattacharyya - Probing quantum phase transition and decoherence in topological insulators with universal conductance fluctuation	Research seminar	24 May 2019	Sydney, NSW
Priyank Kumar - Temperature and light-activated and transformations in nanomaterials	Research seminar	5 June 2019	Sydney, NSW
Idea Factory 2019	Research development, professional development, industry engagement	19 June 2019	Caloundra, QLD
Bhaskaran Muralidharan - Quantum transport in nanowire superconductor hybrid systems	Research seminar	20 June 2019	Melbourne, VIC
Impactful Presentation - Pitch training workshop with Phil Dooley	Professional development	21 June 2019	Melbourne, VIC
Young Researchers Forum: Got PhD, What Next?	Professional development	8 July 2019	Melbourne, VIC
Harley Scammell - Unconventional superconductivity: From deconfined gauge theory to artificial graphene	Research seminar	29 July 2019	Sydney, NSW
Torben Daeneke - Liquid metal chemistry for the synthesis of functional 2D materials	Research seminar	14 August 2019	Sydney, NSW
FLEET annual strategic meeting & ECR workshop	National workshop, research development	15 August 2019	Sydney, NSW
Yunyi Yang - 3D graphene metamaterial platform for on-chip photonic device	Research seminar	19 August 2019	Clayton, VIC
Dimi Culcer - Resonant photovoltaic effect in doped magnetic topological materials	FLEET-wide colloquia	4 September 2019	Clayton, VIC
Jackson Smith - Models for electron transport in the two-dimensional allotropes of bismuth	FLEET-wide colloquia	4 September 2019	Clayton, VIC
Advanced thin film x-ray diffraction techniques	Research development	12 September	Sydney, NSW
Takashi Teranishi - Artificial dielectric interfaces for ultra-high rate Li battery	Research seminar	25 September 2019	Sydney, NSW

FLEET ORGANISED WORKSHOP / SEMINAR TITLE	EVENT TYPE	DATES	LOCATION
Shintaro Yasui - PbTiO ₃ -like tetragonal ferroelectric material designed using Bi(Zn _{1/2} Ti _{1/2})O ₃	Research seminar	25 September 2019	Sydney, NSW
Milos Toth - Integrated quantum photonics based on 2D materials	Research seminar	8 October 2019	Clayton, VIC
FLEET research theme 2 workshop	National workshop	10 October 2019	Canberra, ACT
Kourosh Kalantar-zadeh - Electronics of the future	Scientific workshop	18 October 2019	Sydney, NSW
The impact of electron-electron interaction in 2D systems	Scientific workshop	20 October 2019	Sydney, NSW
Conference on Signatures of Topology in Condensed Matter	International conference	21 October 2019	Trieste, Italy
Tan's contact in strongly interacting Fermi gas in the 3D to 2D crossover	Research seminar	25 October 2019	Hawthorn, VIC
Maciej Pieczarka - Interactions in exciton-polariton condensate	FLEET-wide colloquia	31 October 2019	Canberra, ACT
Melbourne Condensed Matter Community (MC ²)	Scientific workshop	1 November 2019	Melbourne, VIC
FLEET research theme 1 workshop	National workshop	22 November 2019	Sydney, NSW
Gordon Godfrey Workshop	International conference	25 November 2019	Sydney, NSW
Claudio Cazorla - Giant cooling barocaloric cooling effects	Research seminar	29 November 2019	Wollongong, NSW
Allan MacDonald - Cavity QED of strongly correlated electrons: go and no-go	Research seminar	2 December 2019	Clayton, VIC
Control of persistent spin helix in 2D electron gas	Research seminar	4 December 2019	Sydney, NSW
FLEET 2019 annual workshop	National workshop, research development	8 December 2019	Lorne, VIC
Staying well academics workshop at FLEET annual workshop	Research development, professional development, industry engagement	8 December 2019	Lorne, VIC
DCA Unconscious Bias training at FLEET annual workshop	Equity & Diversity workshop	11 December 2019	Lorne, VIC



Break-time during the 2019 Gordon Godfrey workshop

NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
Hosting lab tour	4 January 2019	Public	Sydney, NSW	5
National Youth Science Forum OSA-SPIE student chapter Lab tour	4 January 2019	School students	Canberra, ACT	30
MySci	9 January 2019	School students	Clayton, VIC	118
RMIT's "The Science Experience" - Mission to Mars	14 January 2019	School students	Melbourne, VIC	100
AstroTour: Girls in STEM - Coding focus	15 January 2019	School students	Hawthorn, VIC	20
The Conoco Phillips Science Experience	16 January 2019	School students	Melbourne, VIC	100
National Youth Science Forum OSA-SPIE student chapter Lab tour	18 January 2019	School students	Canberra, ACT	25
Radio New Zealand	16 February 2019	Public	Wellington, NZ	
Monash Tech School lab tour - Wellington Secondary College	13 March 2019	School students	Clayton, VIC	24
The future of electronics: Beyond the end of Moore's law	14 March 2019	Other professional organisations and bodies	Melbourne, VIC	100
Science Projects for SEAACT Science Fair Awards	15 March 2019	School teachers	Melbourne, VIC	1
In2Science STEM peer mentoring in schools	18 March 2019	School students	Melbourne, VIC	50
Coding a Drone (STEM)	19 March 2019	School teachers	Victoria	1
AstroTour: Science Careers focus	20 March 2019	School students	Hawthorn, VIC	24
Public lecture for students association NANOIN at Wroclaw University of Science and Technology	20 March 2019	Undergraduate students	Wroclaw, Poland	30
Teaching @ Emerging Science Victoria 2019	20 March 2019	School students	Melbourne, VIC	30
Girls in Physics Breakfast - Ballarat	22 March 2019	School students	Ballarat, VIC	50
		School teachers		10
Design of periodic table of elements Top Trumps card game	26 March 2019	Public		0
FameLab Semi-Final – Victoria	27 March 2019	public event	Melbourne, VIC	
AstroTour: Research Focus	28 March 2019	School students	Hawthorn, VIC	19
Monash Engineering Girls	11 April 2019	School students	Clayton, VIC	60
Outreach talk - Explanation of the Berry phase, spin-orbit and electron conduction	17 April 2019	Undergraduate students	Sydney, NSW	
Science Nation -- For the love of science	5 May 2019	Public	Melbourne, VIC	45
FameLab national final	8 May 2019	Public	Perth, WA	300

NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
JMSS Regional Exchange laser activity	8 May 2019	School students	Clayton, VIC	15
Asian Physics Olympiad	9 May 2019	School students	Adelaide, SA	100
BrainSTEM	10 May 2019	School students	Melbourne, VIC	20
Briefing Victorian Government (Department of Jobs, Precincts and Regions)	13 May 2019	Government	Melbourne, VIC	6
BrainSTEM	17 May 2019	School students	Melbourne, VIC	20
Melbourne Knowledge Week - Future Computing Exhibit	20 May 2019	Public	Melbourne, VIC	500
AstroTour: Cosmology focus	21 May 2019	School students	Hawthorn, VIC	22
Monash Tech School lab tour - Mount Waverley Secondary College	22 May 2019	School students	Clayton, VIC	45
		School teachers		4
Pint of Science Brisbane	22 May 2019	Public	Brisbane, QLD	70
NUS visit and seminar	23 May 2019	Research community	Singapore	45
BrainSTEM	24 May 2019	School students	Melbourne, VIC	20
UQ Physics Museum Tour	24 May 2019	School students	Brisbane, QLD	7
Top Trumps Card Game	27 May 2019	Public		
Monash Tech School lab tour - Wheelers Hill Secondary College	29 May 2019	School teachers	Melbourne, VIC	4
		School students		40
Monash Tech School lab tour - Brentwood Secondary College	4 June 2019	School students	Clayton, VIC	40
		School teachers		4
Briefing for Victorian State MP Steve Dimopolous	11 June 2019	Government	Clayton, VIC	6
Coding a Drone (STEM)	12 June 2019	School teachers	Victoria	1
BrainSTEM	14 June 2019	School students	Clayton, VIC	12
JMSS Immersion Day graphene activity	14 June 2019	School students	Clayton, VIC	90
Coding a Drone (STEM)	18 June 2019	School teachers	Victoria	1
2019 Idea Factory	19 June 2019	Research community	Sunshine Coast, QLD	25
Goethe Institute Girls Day	19 June 2019	School students	Clayton, VIC	70
Lab tour - Glen Waverley College	19 June 2019	School students	Clayton, VIC	30

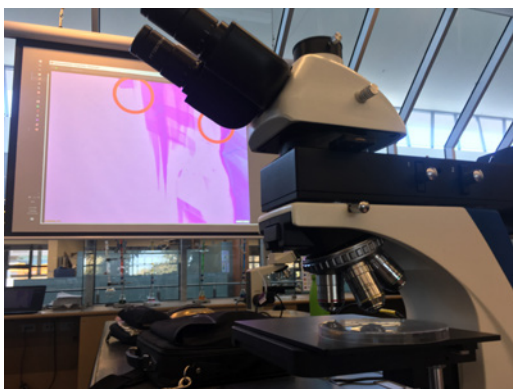
NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
Meeting Mr Peter Polous Senior Advisor for NSW Minister for Energy and Environment	19 June 2019	Government	Sydney, NSW	2
Monash Tech School lab tour - Glen Waverley Secondary College	19 June 2019	School students	Clayton, VIC	50
		School teachers		4
Year 11 Student Lab tour	19 June 2019	School students	Clayton, VIC	20
Physics in the Pub	20 June 2019	Public	Hawthorn, VIC	100
BrainSTEM	21 June 2019	School students	Melbourne, VIC	12
Pitch training	21 June 2019	Research community	Hawthorn, VIC	
Work Experience - Monash	24 June 2019	School students	Clayton, VIC	
Work Experience supervision	24 June 2019	School students	Hawthorn, VIC	4
Year 9 Student Lab tour	25 June 2019	School students	Clayton, VIC	2
Lab tour Monash STM 2D laser and superconducting track - Wheelers Hill Secondary College	26 June 2019	School students	Clayton, VIC	82
JMSS unit: FLEET science	28 June 2019	School students	Clayton, VIC	
Hosting year 10 work experience student Nancy An	1 July 2019	School students	Melbourne, VIC	1
JMSS unit: developing transistors and logic lessons	1 July 2019	School students	Clayton, VIC	35
Swinburne International conference delegates	4 July 2019	Research community	Hawthorn, VIC	20
FLEET Geeks at Monash Community Family Cooperative	5 July 2019	School students	Clayton, VIC	15
AstroTour: Public	8 July 2019	Public	Hawthorn, VIC	28
Indigenous student camp - Monash laser activity	9 July 2019	School students	Clayton, VIC	30
AstroTour: Careers in Science focus	11 July 2019	School students	Hawthorn, VIC	50
Coding a Drone (STEM)	17 July 2019	School teachers	Victoria	1
Monash Tech School lab tour - Brentwood Secondary College	17 July 2019	School students	Clayton, VIC	40
		School teachers		4
Poetry. Science. Women: Celebrating the Amazing	17 July 2019	Public	Canberra, ACT	40
Hosting local MP Mr Paul Scully - Lab tour	18 July 2019	School students	Wollongong, NSW	20
BAE Factory of the Future	23 July 2019	Industry / Business / End-Users	Melbourne, VIC	150
Monash Tech School lab tour - Wellington Secondary College	24 July 2019	School teachers	Clayton, VIC	4
		School students		50

NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
QUT Open Day	28 July 2019	School students	Brisbane, QLD	50
Swinburne Open Day	28 July 2019	Public	Melbourne, VIC	300
Coding a Drone (STEM)	31 July 2019		Regional Victoria	4
lab tour, international students from France	31 July 2019	International students	Melbourne, VIC	2
Monash Tech School - teachers	31 July 2019	School teachers	Clayton, VIC	4
Monash Tech School lab tour - Highvale Secondary College	31 July 2019	School students	Clayton, VIC	50
Rocket Science	2 August 2019	School students	Lilydale, VIC	75
States of Matter, year 6 students	2 August 2019	School students	Kenmore, VIC	80
UOW open day-FLEET contribution 3 AUG 2019	3 August 2019	Public	Wollongong, NSW	1000
FLEET lab tour - Monash	4 August 2019	Public	Clayton, VIC	100
Monash Open Day	4 August 2019	Public	Clayton, VIC	1000
Public lecture	4 August 2019	Public	Clayton, VIC	20
UQ Open Day	4 August 2019	Public	Brisbane, QLD	100
Engineers Australia lecture	6 August 2019	Research community	Sydney, NSW	50
Science in the City - Primary School, Little Explorers, High School	6 August 2019	School students	Sydney, NSW	6981
Coding a Drone (STEM)	7 August 2019	School students	Regional Victoria	4
JMSS Regional Exchange - laser activity	7 August 2019	School students	Clayton, VIC	15
Monash Tech School - South Oakleigh Secondary College	7 August 2019	School students	Clayton, VIC	50
Monash Tech School - teachers	7 August 2019	School teachers	Clayton, VIC	4
In2Science STEM peer mentoring in schools	8 August 2019	School students	Melbourne, VIC	40
Sydney Science Festival	8 August 2019	School students	Sydney, NSW	500
Levitating superconductor on Mobius strip magnetic track	10 August 2019	Public	Sydney, NSW	
Science in the City - Super Science Saturday	10 August 2019	Public	Sydney, NSW	2217
Soapbox Science	10 August 2019	Public	Sydney, NSW	1000
RMIT Open Day	11 August 2019	Public	Melbourne, VIC	60
ANU Physics Market Day	13 August 2019	university students	Canberra, ACT	50
Coding a Drone (STEM)	14 August 2019	School students	Regional Victoria	6
Lecture Writing for JMSS	18 August 2019	School students		

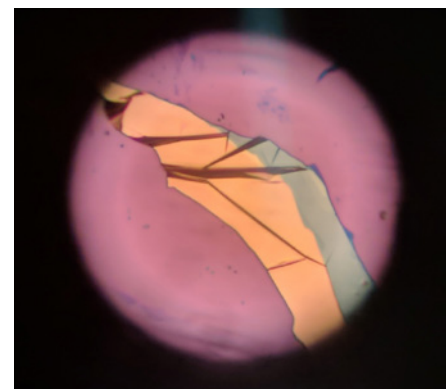
NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
2019 Swinburne Students SHINE in Space Program	20 August 2019	School students	Hawthorn, VIC	6
Emerging Disruptive Technology Assessment Symposium (ED-TAS) interview for paper commissioned by the DE Technologies, DST	21 August 2019	Industry / Business / End-Users	Sydney, NSW	
JMSS unit: Digicomps (binary computing)	22 August 2019	School students	Clayton, VIC	30
JMSS unit: Electromagnetism I	22 August 2019	School students	Clayton, VIC	35
JMSS unit: superfluids	25 August 2019	School students	Clayton, VIC	30
Teaching at John Monash Science School	26 August 2019	School students	Clayton, VIC	25
Monash Tech School lab tour - Brentwood Secondary College	28 August 2019	School teachers	Clayton, VIC	4
		School students		50
Girls in Physics breakfast - Monash University	28 August 2019	School students	Clayton, VIC	100
		School teachers		10
Physics scrutiny panel, Queensland Curriculum and Assessment Authority	29 August 2019	Government	Clayton, VIC	
Rocket Science	30 August 2019	School students	Lilydale, VIC	100
ANU Open Day 2019	31 August 2019	Public	Canberra, ACT	100
CSIRO STEM Professionals	1 September 2019	School teachers	Sydney, NSW	3
Questacon Adults-only science	2 September 2019	Public	Canberra, ACT	2000
ANSTO Young Researchers Conference	3 September 2019	Honours students; PhD students; ANSTO professors and CEO Adi Paterson; and general public	Wollongong, NSW	40
JMSS unit: excitons and superfluids	3 September 2019	School students	Clayton, VIC	35
Monash Tech School - teachers	4 September 2019	School teachers	Clayton, VIC	7
Monash Tech School lab tour - Wellington Secondary College	4 September 2019	School students	Clayton, VIC	50
UNSW Open Day 2019	7 September 2019	Public	Sydney, NSW	2000
JMSS excursion to Monash labs	9 September 2019	School students	Clayton, VIC	35
Editing the FLEET wikipedia page and other associated pages	10 September 2019	Public		
Monash Tech School - Mount Waverley Secondary College	11 September 2019	School teachers	Clayton, VIC	4
		School students		50

NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
Outreach talk - Explanation of the Berry phase, spin-orbit and electron conduction	11 September 2019	Undergraduate students	Sydney, NSW	
JMSS unit: Cold-atoms physics	12 September 2019	School students	Clayton, VIC	30
Monash Tech School lab tour - Glen Waverley Secondary College	18 September 2019	School teachers	Clayton, VIC	4
		School students		50
UNSW China Conversion Mission	25 September 2019	School students	Sydney, NSW	200
Monash Engineering Girls	26 September 2019	School students	Clayton, VIC	60
JMSS unit: Quantum physics	30 September 2019	School students	Clayton, VIC	36
IEEE Electron Device Society newsletter article	1 October 2019	Research community		
JMSS unit: Electromagnetism II	1 October 2019	School students	Clayton, VIC	35
Writing article about XFEL research in Japan	1 October 2019	Research community		0
JMSS unit: graphene and 2D materials I	7 October 2019	School students	Clayton, VIC	35
Monash Tech School - teachers	9 October 2019	School teachers	Clayton, VIC	4
Monash Tech School lab tour - Glen Waverley Secondary College	9 October 2019	School students	Clayton, VIC	50
The future of semiconductors - invited lecture	11 October 2019	UTS Electronics UG students	Sydney, NSW	
Brisbane Open House	12 October 2019	Public	Brisbane, QLD	60
Liquid nitrogen training event	16 October 2019	Research community	Sydney, NSW	30
Monash Tech School lab tour - Brentwood Secondary College	16 October 2019	School teachers	Clayton, VIC	4
		School students		50
21st SPVM National Physics Conference Science Investigatory Projects	18 October 2019	School teachers	Manila, Philippines	300
Astrotour: Exoplanet environments	22 October 2019	Public	Hawthorn, VIC	16
Science Lesson at Lyneham High School	22 October 2019	School students	Canberra, ACT	25
Monash Tech School lab tour - Wheelers Hill College	23 October 2019	School students	Clayton, VIC	40
		School teachers		4
Case study for Oxford Instruments Andor about exciton-polariton research using EMCCD cameras	24 October 2019	Research community	Canberra, ACT	100
Physics scrutiny panel, Queensland Curriculum and Assessment Authority - alternative syllabus	24 October 2019	Government	Brisbane, QLD	3
Invited speaker at Caulfield Grammar Chapel Service	30 October 2019	School students	Melbourne, VIC	50

NAME OF EVENT	DATES	AUDIENCE TYPE	LOCATION	NO. OF AUDIENCE
STEM event with Shayne Neumann MP at Ipswich State High School	30 October 2019	School students	Brisbane, QLD	30
Taste of Research Program	1 November 2019	Physics undergraduate students	Sydney, NSW	2
JMSS unit: graphene and 2D materials II	4 November 2019	School students	Clayton, VIC	35
Science Says!	6 November 2019	Public	Melbourne, VIC	50
Frensham School Visit	13 November 2019	School students	Sydney, NSW	30
L'Oreal Girls in Science Forum 2019	13 November 2019	School students	Sydney, NSW	300
Monash Science video	14 November 2019	Public	Clayton, VIC	
AstroTour: Inspire Science focus	18 November 2019	School students	Hawthorn, VIC	17
UQ Experience physics	23 November 2019	School students	Brisbane, QLD	42
Work Experience for High School student	25 November 2019	School students	Canberra, ACT	1
Science Meets Parliament- meeting MPs Clare O'Neal and Anne Stanley	26 November 2019	Other professional organisations and bodies	Canberra, ACT	
Aspire Big Day Out	28 November 2019	School students	Sydney, NSW	30
Design and develop touch-screen app for Wollongong Science space	1 December 2019	School students	Wollongong, NSW	
Australian Physics Job Fair	3 December 2019	School students	Melbourne, VIC	10
Hosting members of the Joint and Operations Analysis Division of Defence Science and Technology Group Sydney	4 December 2019	Other professional organisations and bodies	Canberra, ACT	3
AstroTour: General Interest	11 December 2019	School students	Hawthorn, VIC	21
UNSW Indigenous pre-program	13 December 2019	School students	Sydney, NSW	8



*JMSS unit on 2D materials:
Layers of graphene under the
light microscope*

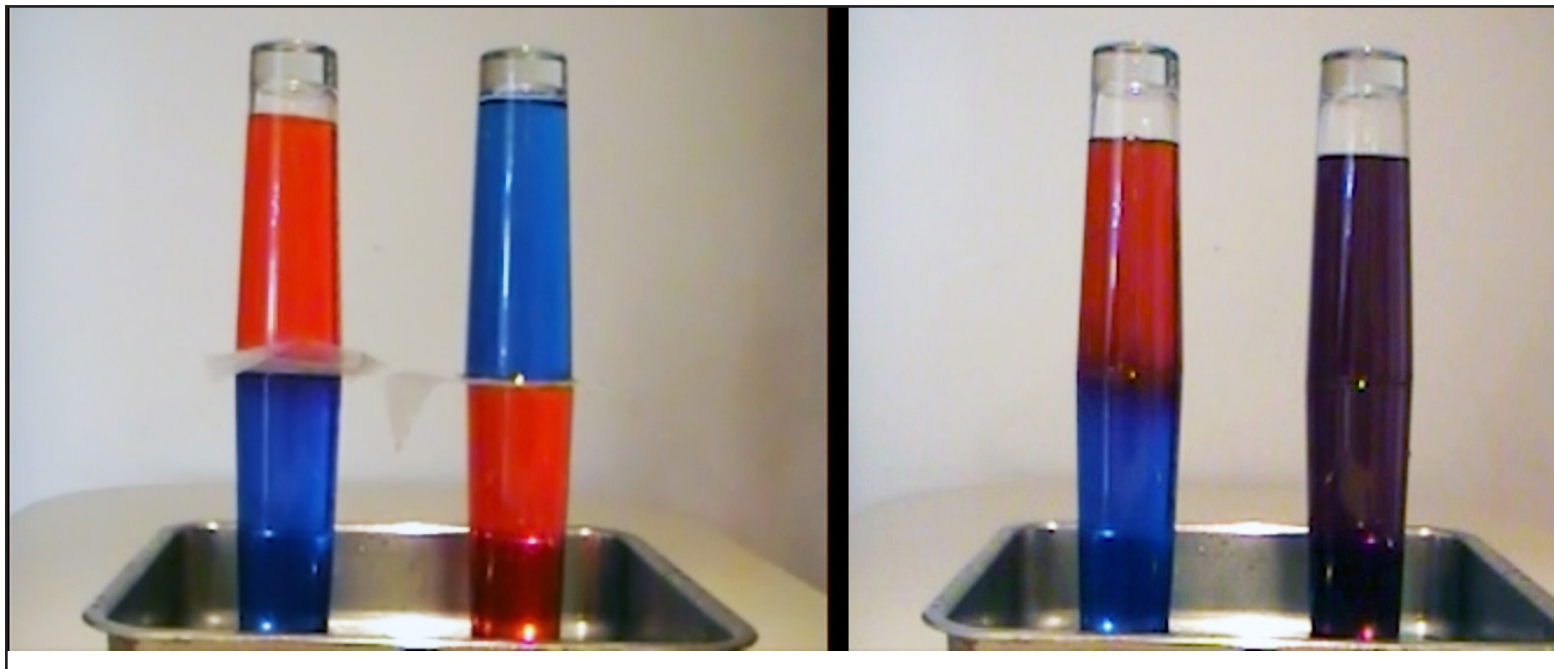


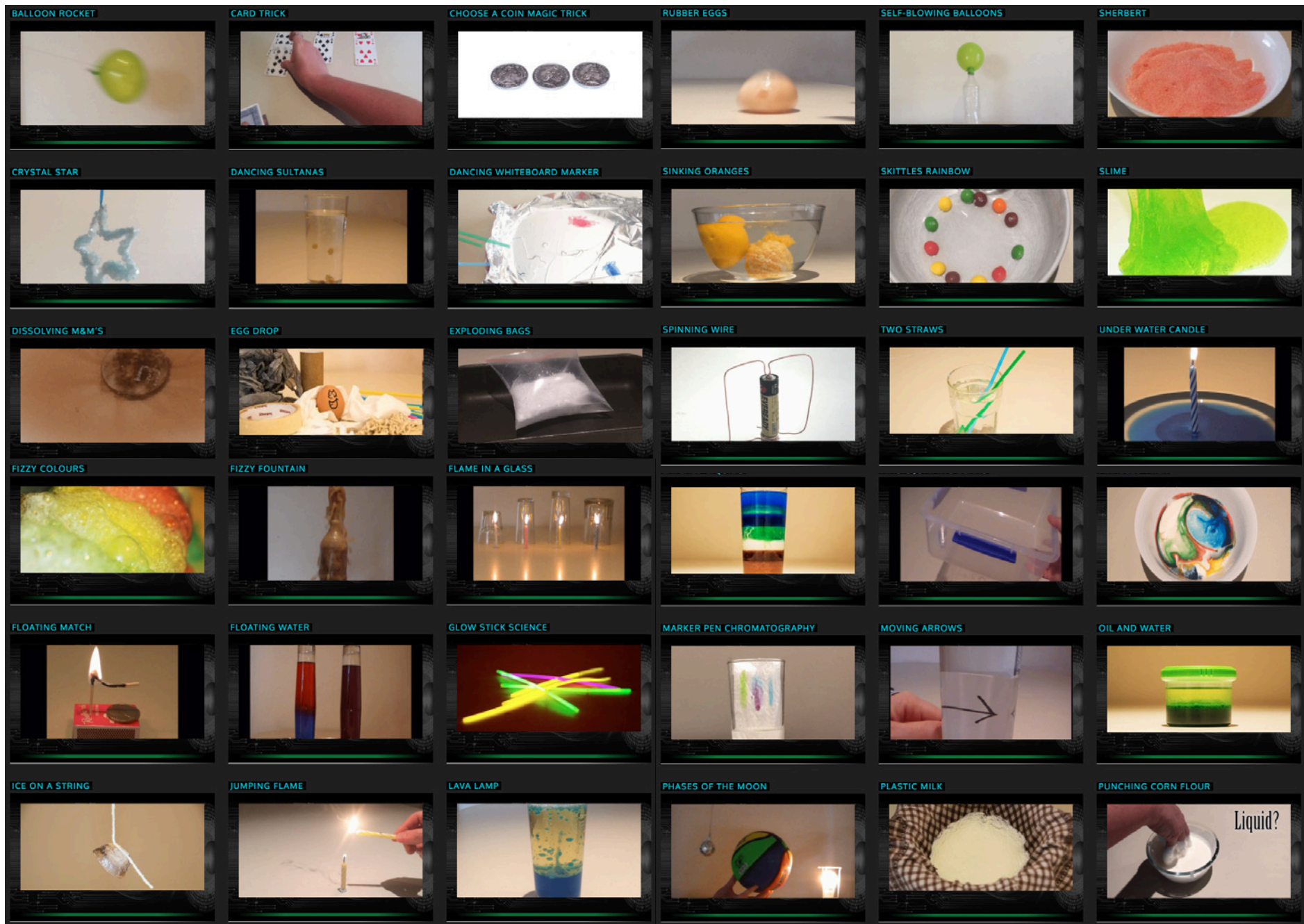
ACTIVITY	WHAT YOU WILL LEARN	SEE HOW IT'S DONE
Appearing coin	Use the science of refraction to make a coin suddenly appear.	http://www.fleet.org.au/blog/appearing-coin
Balancing see-saw	Use household items to demonstrate the science behind see-saws.	http://www.fleet.org.au/blog/balancing-see-saw
Balloon rocket	Model a rocket using a balloon and exhibit one of the laws of motion.	http://www.fleet.org.au/blog/balloon-rocket/
Balloon vs fire	If you hold a flame to a balloon, can you prevent it from exploding?	http://www.fleet.org.au/blog/balloon-vs-fire
Bird in a cage illusion	Create a visual illusion where a bird and a cage drawn different side of the paper to appear as though the bird is in the cage.	http://www.fleet.org.au/blog/bird-illusion
Boat racers	Use bread bag ties to create boats that race along the surface of water without even touching them.	http://www.fleet.org.au/blog/boat-racers
Boiling ice	A simple experiment to demonstrate thermodynamics!	http://www.fleet.org.au/blog/boiling-ice
Card trick	Using maths, perform a card trick to fool friends and family.	http://www.fleet.org.au/blog/card-trick
Catapult	Make a really simple catapult that can be used to fire small items across rooms!	http://www.fleet.org.au/blog/catapult
Catching bubbles	Playing with bubbles can be a bit of fun. But what if you could make it so that the bubbles didn't pop when you caught them?	http://www.fleet.org.au/blog/catching-bubbles
Choose a magic coin trick	A bit of a magic trick you can do, using science concepts to help you find the answer.	http://www.fleet.org.au/blog/choose-a-coin-magic-trick/
Coin shooter	Create a tower using coins, and then bring your tower down by shooting out one layer at a time.	http://www.fleet.org.au/blog/coin-shooter
Coke vs diet coke	If you have a can of Coke and Diet Coke, they are the same size – it says so right on the cans. But we observe a difference very easily.	http://www.fleet.org.au/blog/coke-vs-diet-coke
Coloured light	What colour do you get when you combine red, green and blue light?	http://www.fleet.org.au/blog/coloured-light
Coloured words	This week we use a bit of psychology to issue a challenge – can you say the colour of the text, rather than reading the word?	http://www.fleet.org.au/blog/coloured-words
Crystal star	Something fun and creative that can be done. You can even use your star as a Christmas decoration.	http://www.fleet.org.au/blog/crystal-star/
Cup bridge	Three of the cups are in a triangle, too far apart for the knives to reach. You need to build a bridge to support the weight of the fourth cup.	http://www.fleet.org.au/blog/cup-bridge
Dancing sultanas	It's mesmerising! Watch sultanas dance up and down in a glass of carbonated water.	http://www.fleet.org.au/blog/dancing-sultanas/
Dancing whiteboard marker	Use whiteboard markers to create characters that can dance on top of water.	http://www.fleet.org.au/blog/dancing-whiteboard-marker/
Day and night	Demonstrate why we experience day and night using a ball and a lamp.	http://www.fleet.org.au/blog/day-and-night
Dissolving M&Ms	If you have a few spare M&M's that you'd rather experiment with than eat, this is the experiment for you.	http://www.fleet.org.au/blog/dissolving-mms
Double bounce	Use a basketball and a tennis ball to examine transfer of energy.	http://www.fleet.org.au/blog/double-bounce
Egg drop	A science task with a touch of creativity and design.	http://www.fleet.org.au/blog/egg-drop/

ACTIVITY	WHAT YOU WILL LEARN	SEE HOW IT'S DONE
Electrified steel wool	Use nothing but a 9V battery to set steel wool on fire!	http://www.fleet.org.au/blog/electrified-steel-wool
Elephant toothpaste	Create a chemical reaction that looks like very, very large toothpaste!	http://www.fleet.org.au/blog/elephant-toothpaste
Exploding bag	Make yourself an exploding bag - watch as it gets bigger until it pops!	http://www.fleet.org.au/blog/exploding-bags/
Falling blocks	This demo is a model of a toy, Jacob's ladder, that presents as a type of illusion.	http://www.fleet.org.au/blog/falling-blocks
Falling objects	If you drop objects that weigh different amounts, which will hit the ground first?	http://www.fleet.org.au/blog/falling-objects
Falling rings	Create something out of keyrings that appears to be a magic trick.	http://www.fleet.org.au/blog/falling-rings
Fingerprinting	Examine your fingerprints using every day items. What shapes can you see in your fingerprints?	http://www.fleet.org.au/blog/fingerprinting
Fizzy colours	Make some bubbly colours that fizz up to enthuse even the youngest scientist.	http://www.fleet.org.au/blog/fizzy-colors/
Fizzy fountain	Watch as your fizzy drink explodes to become a spurting fountain.	http://www.fleet.org.au/blog/fizzy-fountain/
Flame in a glass	Complete an experiment using different sized glasses to see what happens to the flame under different conditions.	http://www.fleet.org.au/blog/flame-in-a-glass/
Floating match	Set up a match leaning against another match, with a coin underneath. Challenge someone – take the coin without knocking over the match. How can you do this?	http://www.fleet.org.au/blog/floating-match/
Floating on air	A simple but magical experiment using a ping pong ball and a hair dryer.	http://www.fleet.org.au/blog/floating-on-air
Floating water	A magic trick that can be performed to amaze an audience, using temperature and density to create amazing floating water.	http://www.fleet.org.au/blog/floating-water/
Glow Stick Science	Something fun and simple – playing with glow sticks. Fascinate kids by looking into some science behind glow sticks and chemical reactions.	http://www.fleet.org.au/blog/brightening-glow-sticks/
Holey bag	A bit of science magic – why doesn't a holey bag leak?	http://www.fleet.org.au/blog/holey-bag
Holey balloon	A little bit of science magic. What happens when you push a skewer all the way through a balloon? It pops, right? Not necessarily.	http://www.fleet.org.au/blog/holey-balloon
Honeycomb	Some kitchen science with a tasty treat at the end!	http://www.fleet.org.au/blog/honeycomb
Hovering grape	Create some science magic with a grape hovering in the middle of a glass of water.	http://www.fleet.org.au/blog/hovering-grape
Ice on a string	Perform a magic trick by lifting ice using string, without touching the ice.	http://www.fleet.org.au/blog/ice-on-a-string/
Jumping flame	Light a candle without ever touching a flame to the wick - a bit of science magic!	http://www.fleet.org.au/blog/jumping-flame/
Kitchen extinguisher	Try putting out a candle by making your own fire extinguisher using things you find in the kitchen.	http://www.fleet.org.au/blog/kitchen-extinguisher
Lava lamp	Make your own homemade lava lamp. You can make it in a bottle, with a lid if you want to keep it, or just use a tall glass.	http://www.fleet.org.au/blog/lava-lamp/
Layered liquids	Solids, liquids and gases have different densities - but different densities of liquids can create this layered marvel.	http://www.fleet.org.au/blog/layered-liquids/
Magic floating cutlery	Balance a fork and a spoon on the edge of a toothpick, with the other end of the toothpick just touching the rim of a glass.	http://www.fleet.org.au/blog/floating-cutlery

ACTIVITY	WHAT YOU WILL LEARN	SEE HOW IT'S DONE
Magic jumping beans	A bit of magic mixed with some science. Create a magical jumping bean that seems to move all by itself.	http://www.fleet.org.au/blog/magic-jumping-beans/
Marbled Milk	An artistic little experiment to do – using science to marble colours in milk.	http://www.fleet.org.au/blog/marbled-milk/
Marker Pen Chromatography	Examine what makes up some colours in coloured markers.	http://www.fleet.org.au/blog/chromatography
Möbius strip	Create an object that only has one side - known as a Möbius strip.	http://www.fleet.org.au/blog/mobius-strip
Moving arrows	How can you change the direction of an arrow in a sign? Science!	http://www.fleet.org.au/blog/moving-arrows/
Musical glasses	Make some music with glasses of water and a spoon. What are the different sounds you can make?	http://www.fleet.org.au/blog/musical-glasses
Oil and water	What happens if you have oil and water in a jar and shake it up?	http://www.fleet.org.au/blog/oil-and-water/
Phases of the moon	Use household items to visualise and explain why we see the moon as different shapes.	http://www.fleet.org.au/blog/phases-of-the-moon
Plastic Milk	You can consider this experiment as making plastic from milk, or making cheese, depending on how you treat it.	http://www.fleet.org.au/blog/plastic-milk/
Punching corn flour	Is it a liquid? Is it a solid? It is possible for it to be both?	http://www.fleet.org.au/blog/punching-corn-flour
Red cabbage indicator	Something colourful with kitchen items that can be used to show how acidic (or basic) something is.	http://www.fleet.org.au/blog/red-cabbage-indicator
Rope climber	Use craft and a bit of science to create a puppet that can climb a rope.	http://www.fleet.org.au/blog/rope-climber
Rubber eggs	Want to make an egg that you can bounce? How about an egg that is a completely different colour?	http://www.fleet.org.au/blog/rubber-eggs/
Rubberband car	Use household materials to create a car that can actually go.	http://www.fleet.org.au/blog/rubberband-car
Self-blowing balloons	Out of breath? Use pantry ingredients to automatically blow up a balloon.	http://www.fleet.org.au/blog/self-blowing-balloons/
Sherbert	Science and cooking have a lot of overlap, the mixing of specific amounts of ingredients to form something, and how those ingredients combine. Making sherbert is one example, and a great piece of edible science.	http://www.fleet.org.au/blog/sherbert/
Shrinking chip packet	Make a miniature version of a chip packet. You could make this into a keyring to hang on a school bag.	http://www.fleet.org.au/blog/shrinking-chip-packet
Sinking oranges	Did you know that whether something floats is not about how much it weighs. We can investigate this using oranges.	http://www.fleet.org.au/blog/sinking-oranges
Siphon	Create a siphon using two glasses of water and a tube, and watch as the water defies gravity.	http://www.fleet.org.au/blog/siphon
Skittles rainbow	Skittles are delicious, but they can also be used to make fun and colourful science.	http://www.fleet.org.au/blog/skittles-rainbow/
Slime	Make some gooey slime with a few simple ingredients.	http://www.fleet.org.au/blog/slime/
Spinning eggs	Did you know that a boiled egg will spin around and around, but if you try it with a raw egg it will just stop? Try it!	http://www.fleet.org.au/blog/spinning-eggs

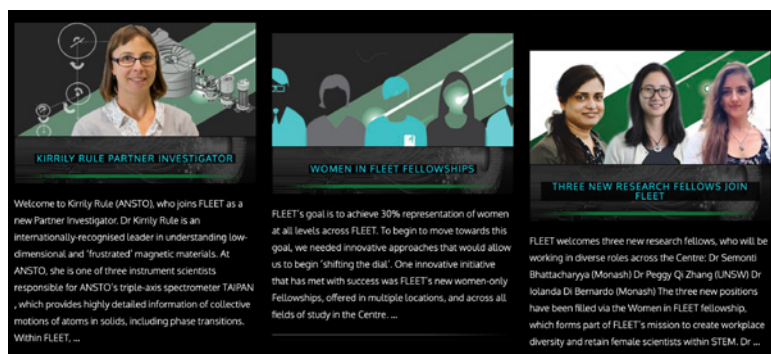
ACTIVITY	WHAT YOU WILL LEARN	SEE HOW IT'S DONE
Spinning wire	The spinning wire experiment is actually an experiment that creates a simple motor with the use of just three things.	http://www.fleet.org.au/blog/spinning-wire
Strength challenge	How strong do you think you are? Here is a trick you can do to show people how "strong" you are.	http://www.fleet.org.au/blog/strength-challenge
Supertaster	Test (and trick) your tastebuds, looking at the relationship between taste and smell.	http://www.fleet.org.au/blog/supertaster
Two straws	Can you drink out of two straws at the same time? What is you use two straws, but only one of them is in your drink?	http://www.fleet.org.au/blog/two-straws/
Under water candle	Watch as water is sucked up into an overturned glass.	http://www.fleet.org.au/blog/under-water-candle/
Volcanoes	A bit messy but a whole lot of fun - create your own model volcano with standard pantry ingredients.	http://www.fleet.org.au/blog/volcanoes/
Walking colours	Use science (and a bit of food colouring) to make a beautiful rainbow by "walking" colours between glasses.	http://www.fleet.org.au/blog/walking-colours
Water bender	You can be a water bender. All you need is a balloon (and a good head of hair).	http://www.fleet.org.au/blog/water-bender



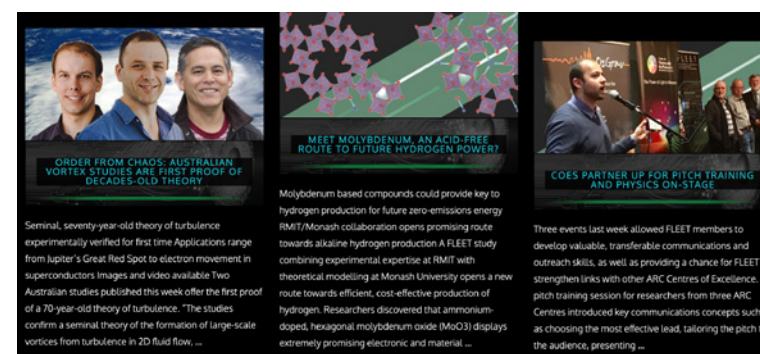


DATE	PRESS RELEASE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
3 January 2019	Vic expert aids cancer detection test	Qiaoliang Bao	AAP Medianet	http://bit.ly/2wg7WXS
25 February 2019	Topological defects could be key to future nano-electronics	Jan Seidel	Scimex and Eurekalet	http://bit.ly/2viXVJp
27 February 2019	Climate rewind: Scientists turn carbon dioxide back into coal	Kouros Kalantar-zadeh, Torben Daeneke	Scimex; RMIT; Medianet; UNSW	http://bit.ly/38erJUG
27 May 2019	Ultra-cold lithium atoms shed light on pair formation in superfluids, helping identify best theories	Chris Vale	Scimex and Eurekalet	http://bit.ly/2TbzK8l
3 June 2019	Tuning the topological insulator Sb_2Te_3 . Just add iron	Xiaolin Wang	Scimex and Eurekalet	http://bit.ly/2wjyreM
28 June 2019	Order from chaos: Australian vortex studies are first proof of decades-old theory	Shaun Johnstone, Kristian Helmerson, Matthew Davis, Matt Reeves	Scimex, Eurekalet and AAP Medianet	http://bit.ly/3cmC447
6 July 2019	First observation of native ferroelectric metal	Pankaj Sharma, Feixiang Xiang, Jan Seidel, Alex Hamilton	Scimex and Eurekalet	http://bit.ly/2Tnwxlk
6 July 2019	Unlocking magnetic properties for future faster, low-energy spintronics	Sultan Albarakati, Cheng Tan, Dimi Culcer, Lan Wang	Scimex and Eurekalet	http://bit.ly/39dsQ8q
31 July 2019	Experimental observation of a new class of materials: excitonic insulators	Xiaolin Wang, Michael Fuhrer, Zhi Li	Scimex and Eurekalet	http://bit.ly/397GtGe
20 September 2019	New Trans-Tasman research will aid search for sustainable future computing	Michael Fuhrer	Eurekalet	http://bit.ly/2wl0z12
11 October 2019	Liquid metals the secret ingredients to clean up environment	Kouros Kalantar-zadeh	Scimex, Eurekalet and AAP Medianet	http://bit.ly/2PCiRSI
14 October 2019	Controlling the charge state of organic molecule quantum dots in a 2D nanoarray	Dhannesh Gopalakrishnan, Agustin Schiffrin	Scimex and Eurekalet	http://bit.ly/2l3Xw06
12 November 2019	New spin directions in pyrite an encouraging sign for future spintronics	Yuefeng Yin	Scimex and Eurekalet	http://bit.ly/38d2Adc

DATE	ARTICLE TITLE	AUTHOR/S	PUBLISHER	LINKS
1 March 2019	Succeeding silicon: Topological transistors	James Collins, Mark Edmonds, Michael Fuhrer	Australian Physics	
8 August 2019	Lindau report	Eliezer Estrecho, Hareem Khan, Matt Reeves	FLEET blog	http://bit.ly/2xvzHfL
19 August 2019	ARC Centre of Excellence leads the way to create fellowships for women	Errol Hunt, Elena Ostrovskaya, Michael Fuhrer, Tich-Lam Nguyen, Semonti Bhattacharyya, Iolanda Di Bernardo, Peggy Qi Zhang	Australian Research Council	http://bit.ly/2wZuUmQ
1 September 2019	Pursuing Physics around the globe but I still call Australia home	Kirril Rule	Australian Physics	
7 September 2019	FLEET/UNSW scientists sharing their passion for science: science outreach	Cecilia Bloise, Alex Hamilton, Karina Hudson, Yonatan Ashlea Alava, Samuel Bladwell, Aydin Keser	FLEET blog	http://bit.ly/2wZuOey
7 September 2019	Impossibly cool: negative absolute temperatures	Shaun Johnstone	FLEET blog	http://bit.ly/2wUdkQx
1 October 2019	Kilometre-long laser takes aim at UNSW PhD student	Oliver Paull, Nagarajan Valanoor	UNSW Science	http://bit.ly/3cuuDZO
1 November 2019	Abrupt onset of pairing points to best theories for describing ultra-cold Fermi gases	Chris Vale, Ivan Herrera, Paul Dyke, Carlos Claiton Noschang Kuhn, Sascha Hoinka	Australian Physics	
1 December 2019	Discovery of 'super-fluid like' effect of penetration through porous materials in liquid metals at room temperature	Xiaolin Wang, Frank Yun	FLEET research blog	http://bit.ly/2l8Hm00
16 December 2019	Mind the gap - new wide-bandgap topological insulator	Xiaolin Wang, Weiyao Zhao, Michael Fuhrer	FLEET research blog	http://bit.ly/32Fyv16



Screen-shots of FLEET research blog articles



DATE	TYPE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
1 February 2019	Print, Magazine	Negative mass	David Colas, Errol Hunt	Australian Physics	
27 February 2019	Print, Magazine	Scientists turn carbon dioxide into coal at room temperature	Torben Daeneke	Cosmos magazine	http://bit.ly/2Tswuos
1 March 2019	Print, Magazine	Succeeding silicon: Topological transistors	James Collins, Mark Edmonds, Michael Fuhrer	Australian Physics	
28 March 2019	Print, Newspaper	Steminist breakfast	Dianne Ruka	Ballarat Times	http://bit.ly/2TpOMXf
1 April 2019	Print, Magazine	Monash University engineers unlock avenue for early cancer diagnosis	Qiaoliang Bao	Materials Australia	
1 April 2019	Print, Magazine	Ultra-low energy devices at the flick of a switch	James Collins, Michael Fuhrer, Mark Edmonds	Materials Australia	
1 June 2019	Print, Magazine	University Spotlight: Monash University	Mark Edmonds	Materials Australia	
20 June 2019	Print, Magazine	Carbon capture made viable	Kourosh Kalantar-zadeh, Torben Daeneke	Create (Engineers Australia magazine)	
1 July 2019	Print, Magazine	Tuning the topological insulator Sb_2Te_3 : Just add iron	Xiaolin Wang	Materials Australia	
1 August 2019	Print, Magazine	Putting the quantum into battery	Meera Parish, Jesper Levinsen, Emma Laird	Australian Research Council	http://bit.ly/2wR11Wy
1 September 2019	Print, Magazine	Pursuing Physics around the globe but I still call Australia home	Kirrily Rule	Australian Physics	
1 November 2019	Print, Magazine	Women in Physics lectures - how neutrons can save the world	Kirrily Rule	Australian Physics	
1 November 2019	Print, Magazine	Abrupt onset of pairing points to best theories for describing ultra-cold Fermi gases	Chris Vale, Paul Dyke, Sascha Hoinka, Carlos Claiton Noschang Kuhn, Ivan Herrera	Australian Physics	
1 December 2019	Print, Magazine	Controlling the charge state of organic molecule quantum dots in a 2D nanoarray	Dhannesh Gopalakrishnan	Materials Australia	
1 December 2019	Print, Magazine	Elusive excitonic insulator observed by researchers	Zhi Li, Xiaolin Wang	Materials Australia	
1 December 2019	Print, Magazine	From the President		Materials Australia	

DATE	TYPE	ARTICLE TITLE	MEMBERS INVOLVED	PUBLISHER	LINKS
11 January 2019	Radio Interview	New 2D material could help early cancer diagnosis	Qiaoliang Bao	SBS Mandarin	http://bit.ly/38b5TBt
2 February 2019	Radio Interview	Creating coal from CO ₂ - undoing fossil fuel burning to save the climate	Torben Daeneke	CBC Radio	http://bit.ly/2vshJtM
7 February 2019	Radio Interview	What is topological switching	Mark Edmonds	Lost in Science, Radio 3CR	http://bit.ly/2PzFKpJ
16 February 2019	Radio Interview	The future of computing	Michael Fuhrer	Radio New Zealand	http://bit.ly/397FF4a
27 February 2019	Radio News	News mention and interview played	Kourosh Kalantar-zadeh	ABC Radio	http://bit.ly/2T94NCa
27 February 2019	Radio Interview	Interview	Kourosh Kalantar-zadeh	ABC Radio Adelaide	http://bit.ly/2VzLovS
4 March 2019	Radio News	News item and interview	Kourosh Kalantar-zadeh	ABC Radio	http://bit.ly/38erc58
13 March 2019	Radio Interview	Byner interviews Doctor Torben Daeneke from RMIT University about a low cost method of turning carbon dioxide into coal found in the Nature...	Torben Daeneke	Radio FIVEaa Adelaide	http://bit.ly/3cnszSj
17 July 2019	Radio News	New findings on fluid turbulence		Radio New Zealand	http://bit.ly/2TapFbZ
1 October 2019	Radio Interview	Diffusion science radio: Future low energy electronics	Samuel Bladwell	2SER 107.3FM	http://bit.ly/2wh8RHo
1 October 2019	Radio Interview	Diffusion science radio: Spins and valleys	Samuel Bladwell	2SER 107.3FM	http://bit.ly/3cjl6DZ
1 November 2019	Annual report	Progress on low energy electronics	Anton Tadich	ANSTO Annual Report	

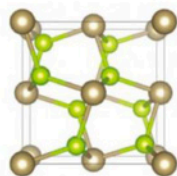


Dr Samuel Bladwell

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
27 February 2019	Climate rewind: scientists turn carbon dioxide back into coal	Kourosh Kalantar-zadeh, Torben Daeneke	UNSW Engineering e-news-letter	http://bit.ly/2TkChMw
4 July 2019	Stirring an impossible liquid		CSIRO Double Helix Extra newsletter	http://bit.ly/2weeCpk
6 July 2019	Researchers discover an unseen mode of GMR in 2D materials		Spintronics.info	http://bit.ly/2TbUzRx
8 July 2019	Order from chaos: Monash vortex study first proof of decades-old theory	Kristian Helmerson, Shaun Johnstone	Monash University Science Orbit newsletter	http://bit.ly/32DZk9k
1 September 2019	Physics at RMIT University	Jared Cole	Association of Asia Pacific Physical Societies	http://bit.ly/2Vy4HWf
16 September 2019	Gutsy effort to produce comprehensive study of intestinal gases	Kourosh Kalantar-zadeh	UNSW Engineering	http://bit.ly/3adALmr
1 October 2019	FLEET scientists sharing their passion for science outreach	Karina Hudson, Cecilia Bloise, Alex Hamilton, Aydin Keser, Yonatan Ashlea Alava, Daniel Sando, Eliezer Estrecho, Dianne Ruka	Newsletter from the Dean of Science	http://bit.ly/38c8uey
25 October 2019	ARC Centre of Excellence leads the way to create fellowships for women	Peggy Qi Zhang, Semonti Bhattacharyya, Iolanda Di Bernardo	Australian Research Council ARChway newsletter	http://bit.ly/2lk40YZ
18 December 2019	New spin directions in pyrite an encouraging sign for future spintronics		Australian Research Council ARChway newsletter	http://bit.ly/3cm8ko4

New spin directions in pyrite an encouraging sign for future spintronics

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Original Published Date:
Tuesday, November 26, 2019

Full article [↗](#) issued by the [ARC Centre of Excellence in Future Low Energy Electronics](#) [↗](#) (FLEET).

An ARC-supported Monash University study revealing new spin textures in pyrite could unlock these materials' potential in future 'spintronics' devices. Such devices specifically exploit an electron's spin properties in addition to its charge, and are important for a relatively new class of materials called topological insulators, one of the core research themes at the [ARC Centre of Excellence in Future Low Energy Electronics](#) [↗](#).

Topological materials have exciting potential for next-generation, ultra-low energy electronics, including thermoelectric and spintronic devices, but a restriction on the use of such materials in spintronics has been that all topological materials studied thus far have spin states that lie parallel to the plane of the material, while many/most/all practical spintronic devices would require out-of-plane spin states.

Generating and manipulating out-of-plane spins without applying an external electric or magnetic field has been a key challenge in spintronics.

The new study demonstrates for the first time that pyrite-type crystals can host unconventional energy—and direction-dependent spin textures on the surface, with both in-plane and out-of-plane spin components, in sharp contrast to spin textures in conventional topological materials.

Photo credit:

The crystal structure of Pyrite $\text{OsSe}_2/\text{OsTe}_2$. Credit: FLEET.

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
1 January 2019	The future of computing requires innovation in energy	Jared Cole, Daisy Qingwen Wang	Pacific Standard Magazine	https://bit.ly/32ATnKz
1 January 2019	The present and future of ingestible sensors – The new taste of science	Kourosh Kalantar-zadeh	PreScouter	https://bit.ly/32FTN21
3 January 2019	Ultra-low power transistors shown to be possible with unique material	Mark Edmonds, James Collins, Anton Tadich, Michael Fuhrer	PowerPulse.Net	https://bit.ly/3cjcCg7
3 January 2019	Vic expert aids cancer detection test	Qiaoliang Bao	Multiple sites (82): Armidale Express, Barossa Herald, Beaudesert Times, Bega District News, Bellington Shire Courier-Sun, Bendigo Advertiser, Blayney Chronicle, Blue Mountains Gazette, Bombala Times, Border Mail, Busselton-Dunsborough Mail, Camden-Narellan Advertiser, Campbelltown-MacArthur Advertiser, Cootamundra Herald, Crookwell Gazette, Daily Liberal, Daily Mail UK, Dungog Chronicle, Eden Magnet, Eyre Peninsula Tribune, Fairfield City Champion, Forbes Advocate, Gloucester Advocate, Goondiwindi Argus, Goulburn Post, Great Lakes Advocate, Hepburn Advocate, Illawarra Mercury, Inverell Times, Jimboomba Times, Junee Southern Cross, Katherine Times, Lithgow Mercury News, Mandurah Mail, Manning River Times, Merimbula News, Moree Champion, Murray Valley Standard, Namoi Valley Independent, Narooma News, Narromine News, Newcastle Herald, Northern Argus, Northern Daily Leader, Oberon Review, Port Lincoln Times, Port Macquarie News, Port Pirie Recorder, Port Stephens Examiner, Redland City Bulletin, SBS News, South Coast Register, St George and Sutherland Shire Leader, Tenterfield Star, The Advocate, The Ararat Advertiser, The Cessnock Advertiser, The Courier, The Esperance Express, The Examiner, The Flinders News, The Grenfell Record, The Irrigator, The Islander, The Macleay Argus, The North West Star, The Standard, The Stawell Times-News, The Wimmera Mail-Times, The Young Witness, Victoria Harbour Times, Walcha News, Wauchope Gazette, Wellington Times, West Coast Sentinel, Western Advocate, Western Magazine, Whyalla New, Wingham Chronicle, Yass Tribune, Power 98.1 FM, Tasmania Talks	https://bit.ly/3cpEY8D

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
4 January 2019	Engineers unlock avenue for early cancer diagnosis	Qiaoliang Bao	Medical Xpress	https://bit.ly/3aerPx4
4 January 2019	Monash engineers unlock avenue for early cancer diagnosis	Qiaoliang Bao	Monash University	https://bit.ly/39dvv39
5 January 2019	A significant advance in topological transistors and beyond-CMOS electronics	Mark Edmonds, Michael Fuhrer	News Base	https://bit.ly/2uFIWZu
8 January 2019	Topological quantum materials switch up a gear	Mark Edmonds	Physics World	https://bit.ly/3ajdM9k
12 January 2019	New 2D material can enhance detection of cancer biomarkers	Qiaoliang Bao	Materials Today	https://bit.ly/32ATDcv
14 January 2019	Topological material switched off and on for the first time	Mark Edmonds, Michael Fuhrer	Vision Science Research News	https://bit.ly/2wkeXXX
2 February 2019	CO ₂ converted to solid carbon	Torben Daeneke	Design News	https://bit.ly/2I7X8he
17 February 2019	Liquid metal nano printing set to revolutionise electronics	Kourosh Kalantar-zadeh	Materials Australia	https://bit.ly/3ak9ZsK
22-26 February 2019	Topological defects could be key to future nano-electronics	Jan Seidel	Multiple sites (4): Phys.org, UNSW School of Material Science and Engineering, 7th space, Nanowerk, Solid State Technology	https://bit.ly/2vk6PGy
26 February 2019	Carbon capture: Turning carbon dioxide back into coal	Torben Daeneke	Scisco Media	https://bit.ly/3ahSxVD
26 February 2019	Chemistry breakthrough: capturing carbon dioxide for keeps	Torben Daeneke	Science Times	https://bit.ly/38aqhCM
26 February 2019	Turning back the clock on climate change. Converting carbon dioxide back into coal	Torben Daeneke	Medium	https://bit.ly/2Vzb7Eo
27 February 2019	Amazing breakthrough 'rewinds emissions clock' by turning CO ₂ into coal	Torben Daeneke	Silicon Republic	https://bit.ly/38gYelr
27 February 2019	Australian researchers turn CO ₂ back into coal	Torben Daeneke	Multiple sites (2): China.org, Xinhua	https://on.china.cn/32ES4u2
27 February 2019	Carbon dioxide is turned back into coal in world-first breakthrough which 'could lead to permanently cleaner air'	Torben Daeneke	Daily Mail	https://dailym.ai/2wjqqqc
27 February 2019	Carbon emissions rewind: RMIT scientists turn carbon dioxide back into coal	Torben Daeneke	Energy Matters	https://bit.ly/3cuhS0y
27 February 2019	Chemistry: Converting carbon dioxide into carbon batteries	Torben Daeneke	Nature Asia	https://go.nature.com/32DW4uC

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
26-28 February 2019	Climate rewind: scientists turn carbon dioxide back into coal	Torben Daeneke, Kourosh Kalantar-zadeh	Multiple sites (8): Australian Research Council, Bioengineer.org, BioFuel Daily, Environmental News Agency, Phys.org, RMIT, Science Daily, UNSW Newsroom, R&D Magazine, Science and Technology Research News	https://bit.ly/2Pz2SV2
27 February 2019	Climate rewind: Scientists turn emissions back Into coal	Torben Daeneke, Kourosh Kalantar-zadeh	Courthouse News	https://bit.ly/38bevrv
27 February 2019	CO ₂ turned back into coal	Torben Daeneke	Energy Career	https://bit.ly/2VzDsuA
27 February 2019	Crean un método que permite convertir el dióxido de carbono en carbón para acabar con el cambio climático	Torben Daeneke	ABC Spain	https://bit.ly/39dfadN
27 February 2019	De vaste koolstofdeeltjes bieden nieuwe mogelijkheden voor het afvangen en opslaan van CO ₂	Torben Daeneke	Scientias	https://bit.ly/387rMSP
27 February 2019	Hope for 'climate rewind' as scientists invent trick to 'turn carbon dioxide into COAL'	Torben Daeneke	Multiple sites (3): The Sun, The World News, USA Today Post	https://bit.ly/2wkwejb
27 February 2019	Carbon dioxide turned back into solid coal	Torben Daeneke	The London Economic	https://bit.ly/32AYnPk
27 February 2019	In world first, scientists turn carbon dioxide back Into coal		Interesting Engineering	https://bit.ly/218vikl
27 February 2019	Incredible breakthrough that could turn back climate change	Torben Daeneke	Channel Ten	https://bit.ly/2VxQngo
27 February 2019	Liquid metal catalyst solidifies CO ₂ for safe storage	Torben Daeneke	The Engineer	https://bit.ly/2VzS7pm
27 February 2019	Logran reciclar CO ₂ en carbón sólido, hito en la captura de carbono	Torben Daeneke	Europa Press	https://bit.ly/386Nu8R
27 February 2019	Monash physicist recognised internationally as an outstanding referee	Meera Parish	Monash Science	https://bit.ly/2uFJuyw
27 February 2019	New process could capture CO ₂ and make it coal again	Torben Daeneke	ZME Science	https://bit.ly/39dD8p7
27 February 2019	New way to change carbon dioxide into coal can rewind the exhaust clock	Torben Daeneke	Manchikoni	https://bit.ly/2Vwt8mO
27 February 2019	New way to turn carbon dioxide into coal	Torben Daeneke	Tech Explorist	https://bit.ly/3aeSauN

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
27 February 2019	New way to turn carbon dioxide into coal could 'rewind the emissions clock'	Torben Daeneke	Multiple sites (2): American Assoc for the Advancement of Science, Remo News	https://bit.ly/2VzDHWw
27 February 2019	Report: Scientists invent method to turn CO ₂ into solid carbon	Torben Daeneke	Iran Daily	https://bit.ly/2VwlzeU
27 February 2019	Researchers can now cheaply turn atmospheric CO ₂ back into coal	Torben Daeneke	IFL Science	https://bit.ly/38bvp9Z
27 February 2019	Researchers succeed in turning CO ₂ back into coal	Torben Daeneke	Tech Times	https://bit.ly/3cihcLv
27 February 2019	Scientists are converting carbon dioxide back into charcoal	Torben Daeneke, Kourosh Kalantar-zadeh	Naaju	https://bit.ly/2wkwuB
27 February 2019	Scientists can now turn CO ₂ in the air into solid coal	Torben Daeneke	Big Think	https://bit.ly/2VANuLF
27 February 2019	Scientists convert CO ₂ back into coal in carbon breakthrough	Torben Daeneke	The New Daily	https://bit.ly/2TbzF52
27 February 2019	Scientists devise groundbreaking technique to turn CO ₂ back into coal	Torben Daeneke	Earth.com News	https://bit.ly/2PATm3X
27 February 2019	Scientists have found an efficient way to turn carbon dioxide back into coal	Torben Daeneke	Science Alert	https://bit.ly/2l3SWPv
27 February 2019	Scientists invent method to turn CO ₂ into solid carbon – report	Torben Daeneke	Sputnik News	https://bit.ly/2T9MBrS
27 February 2019	Scientists just pulled CO ₂ from air and turned it into coal		Forbes	http://bit.ly/2T8wH0Z
27 February 2019	Scientists make coal from CO ₂ in climate change alchemy	Torben Daeneke	Slashgear	http://bit.ly/2viMOjG
27 February 2019	Scientists succeed in turning carbon dioxide back into coal	Torben Daeneke	Engineering & Technology	http://bit.ly/3aihEaU
27 February 2019	Scientists transform CO ₂ into a groundbreaking carbon sequestration experiment in coal	Torben Daeneke	News Beezer	http://bit.ly/399PVJm
27 February 2019	Scientists turn carbon dioxide (CO ₂) back into coal at room temperature	Torben Daeneke	RtoZ.Org	http://bit.ly/2vjuZRz
27 February 2019	Scientists turn carbon dioxide back into coal	Torben Daeneke	Multiple sites (2): Laboratory Equipment, New Zealand Herald	http://bit.ly/38eHzyG

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
27 February 2019	Scientists turn carbon dioxide back to coal in world-first	Torben Daeneke	The Long Room	http://bit.ly/2I9ibja
27 February 2019	Scientists turn CO ₂ 'back into coal' in breakthrough carbon capture experiment	Torben Daeneke	Independent	http://bit.ly/39nV8Nu
27 February 2019	Scientists use liquid metals to turn carbon dioxide gas back into coal	Torben Daeneke	New Atlas	http://bit.ly/2PBx02p
27 February 2019	Technique to convert CO ₂ into solid carbon particles devised by scientists		Computing News	http://bit.ly/2PvNHw3
27 February 2019	Turning carbon dioxide back into coal	Torben Daeneke, Kourosh Kalantar-zadeh	Technology Network	http://bit.ly/2I4cFyv
27 February 2019	Turning carbon dioxide back into coal could rewind 'emissions clock'	Torben Daeneke	New Zealand Herald	http://bit.ly/2T9NIb2
28 February 2019	Carbon dioxide turned back into coal as scientists try to 'rewind' climate change	Torben Daeneke	Mirror	http://bit.ly/2uMmhuM
28 February 2019	Du gaz carbonique ramené à l'état de charbon	Torben Daeneke	Radio Canada	http://bit.ly/2vk9P5M
28 February 2019	Researchers try to "undo" emissions by turning carbon dioxide back into coal	Torben Daeneke	Anthropocene Magazine	http://bit.ly/32DYvxg
28 February 2019	Scientists just figured out how to turn CO ₂ back into coal	Torben Daeneke	Fast Company	http://bit.ly/2I3Rmx0
28 February 2019	Scientists turn atmospheric CO ₂ into coal	Torben Daeneke	Multiple sites (2): Yale Environment 360, Science Blog	http://bit.ly/2TcFP4A
28 February 2019	Scientists turn carbon dioxide into solid coal to reverse climate change	Torben Daeneke	Value Walk	http://bit.ly/32EBiLJ
1 March 2019	Carbon dioxide: The newest form of renewable energy?	Torben Daeneke	New American	http://bit.ly/2TvkdQd
1 March 2019	The 5 coolest things on Earth this week	Torben Daeneke	GE Reports	https://invent.ge/3cl1eAk
1 March 2019	Top young physicists to attend Lindau Nobel Laureate Meeting	Hareem Khan, Matt Reeves, Eliezer Estrecho	Australian Academy of Science	http://bit.ly/2I3Lnbo
2 March 2019	Green heads will explode over new renewable process: CO ₂ to coal	Torben Daeneke	Watts Up With That	http://bit.ly/3ckmJkU
2 March 2019	Melbourne University scientists turn carbon dioxide back into coal	Torben Daeneke, Kourosh Kalantar-zadeh	Carbon Capture Journal	http://bit.ly/2PzeIEa

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
2 March 2019	Scientists can now turn carbon dioxide back into coal, here's how	Torben Daeneke	India Today	http://bit.ly/2VzULeM
3 March 2019	Scientists convert CO ₂ to solid coal	Torben Daeneke, Kourosh Kalantar-zadeh	Industry Queensland	http://bit.ly/38elnoi
3 March 2019	Solid carbon from CO ₂	Torben Daeneke	Chemistry Views	http://bit.ly/2I3RDA2
3 March 2019	Technique turns carbon dioxide back into coal	Torben Daeneke	The Naked Scientists	http://bit.ly/2PC6DsT
4 March 2019	Appointment, achievements	Hareem Khan, Eliezer Estrecho, Matt Reeves	Campus Morning Mail	http://bit.ly/3civeNa
4 March 2019	Researchers turn carbon dioxide back into coal	Torben Daeneke	Sustainability Matters	http://bit.ly/2wiQTnM
4 March 2019	Scientists turn carbon dioxide into coal at room temperature	Torben Daeneke	Australia's Science Channel	http://bit.ly/2I6eMlt
5 March 2019	'Alchemy' turns CO ₂ into coal	Torben Daeneke	The Australian	http://bit.ly/3ae98cT
5 March 2019	Griffith physicist bound for prestigious Lindau Nobel Laureate Meeting	Eliezer Estrecho, Hareem Khan, Matt Reeves	Griffith University	http://bit.ly/2wcQfs5
5 March 2019	Liquid metal turns back time on fossil fuel burning	Torben Daeneke	Chemistry World	http://bit.ly/2Tq0iCa
5 March 2019	Scientists at Royal Melbourne Institute of Technology turn carbon dioxide back into coal	Torben Daeneke	World Coal	http://bit.ly/3cmQz84
6 March 2019	Scientists figure out a way to convert carbon dioxide into coal	Torben Daeneke	Wonderful Engineering	http://bit.ly/384Rt60
8 March 2019	Scientists discover way to convert CO ₂ back into coal in "world first"	Torben Daeneke	Power Technology	http://bit.ly/2vrJ8vR
9 March 2019	Improved carbon capture turns CO ₂ into energy storage material	Torben Daeneke, Kourosh Kalantar-zadeh	Physics World	http://bit.ly/2VxL4xv
11 March 2019	Capturing carbon		Semiconductor Engineering	http://bit.ly/2vqzXf2
13 March 2019	UQ physicists to mingle with Nobel Laureates	Matt Reeves	University of Queensland	http://bit.ly/3aejOIs
1 April 2019	Professor Jan Seidel & Dohyung Kim "Light- and bias-induced structural variations in metal halide perovskites"	Jan Seidel	UNSW Material Science and Engineering	http://bit.ly/388xHq3
1 April 2019	Professor Nagarajan Valanoor & Dr Daniel Sando "Epitaxial ferroelectric oxide thin films for optical applications"	Nagarajan Valanoor, Daniel Sando	UNSW Material Science and Engineering	http://bit.ly/3akSisH
2 April 2019	Fleet collaboration reviews ferromagnetism in 2D materials	Babar Shabbir	Science and Technology Research News	http://bit.ly/38h0JUR

DATE	ARTICLE TITLE	MEMBERS MENTIONED	PUBLISHER	LINKS
2 April 2019	Long range intrinsic ferromagnetism in two-dimensional materials	Babar Shabbir	Phys.org	http://bit.ly/2T9Ofd2
10 April 2019	Liquid metal discovery to make toxic water safe and drinkable	Kourosh Kalantar-zadeh	UNSW Engineering	http://bit.ly/39ic8Fe
16 April 2019	Australian researchers create artificial graphene	Oleh Klochan	Electronics Online	http://bit.ly/2TpKwXL
20 May 2019	The future of electronics	Carlos Kuhn, Errol Hunt, Meera Parish, Rebecca Orrell-Trigg	Royal Society of Victoria	http://bit.ly/38oc4Cj
21 May 2019	New Josephson junction study links quantum theory to experiment	Samuel Wilkinson, Jared Cole	Phys.org	http://bit.ly/3ahT9L0
24 May 2019	Физики обнаружили резкий рост контактного параметра при переходе газа фермионов в сверхтекучее состояние	Chris Vale	N plus 1	http://bit.ly/3ae9hNt
27 May 2019	Ultra-cold lithium atoms shed light on pair formation in superfluids, helping identify best theories	Chris Vale	Phys.org	http://bit.ly/2TahtZf
27 May 2019	Ultra-cold lithium atoms shedding light on superfluid formation	Sascha Hoinka, Chris Vale	Science Magazine	http://bit.ly/39dV4Qm
1 June 2019	Tuning the topological insulator Sb^2Te_3 : Just add iron	Xiaolin Wang	Multiple sites (6): Science Codex, Bioengineer, Phys.org, Science Magazine, Chem Europe, 7th Space	http://bit.ly/3ae9qR1
27 June 2019	New Zealand and Australian researchers observe 70-year-old prediction, with wide-reaching effects		Science Codex	http://bit.ly/2PEh9A6
27 June 2019	Researchers examine 70-year theory of fluid turbulence		Shilfa	http://bit.ly/2PQOY11
27-30 June 2019	Researchers verify 70-year-old theory of turbulence In fluids		Multiple sites (7): Wopular, University of Queensland, Vaaju, e-News, Space Daily	http://bit.ly/2l80mRS
28-29 June 2019	A microscopic 'Great Red Spot' just confirmed a 70-year-old theory on superfluids		Multiple sites (3): Science Daily Press, Science News 24-7, Science Alert	http://bit.ly/3akSCHV
28 June 2019	Giant vortex clusters appear in 2D superfluids	Shaun Johnstone, Kristian Helmerson, Matthew Davis	Physics World	http://bit.ly/397e4jD
28 June 2019	Order from chaos: Australian vortex studies are first proof of 70-year-old theory of turbulence in fluids	Shaun Johnstone, Kristian Helmerson, Matt Reeves, Matthew Davis	Multiple sites (2): Phys.org, Science Spies	http://bit.ly/2T8mK3A

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28 June 2019	Order from chaos: Australian vortex studies are first proof of decades-old theory	Shaun Johnstone, Kristian Helmerson, Matt Reeves, Matthew Davis	Multiple sites (3): Brightsurf, Sciglow, Science and Technology Research News	http://bit.ly/2Tqvzoz
28 June 2019	Order from chaos: Monash vortex study first proof of decades-old theory	Kristian Helmerson, Shaun Johnstone	Monash Science	http://bit.ly/32DZk9k
28 June 2019	Otago-Queensland researchers observe 70-year-old prediction, with wide-reaching effects	Matt Reeves, Matthew Davis	Multiple sites (2): New Zealand Foreign Affairs, Otago Science News	http://bit.ly/3aGOv9g
28 June 2019	Scientists confirmed 70-year-old theory of turbulence in fluids		Technology.org	http://bit.ly/2PD1ssN
28-29 June 2019	Taming the storm: researchers prove 70-year-old turbulence model	Shaun Johnstone, Matthew Davis	Multiple sites (5): Brisbane Times, Sydney Morning Herald, The Age, The World News, Move to Sydney	http://bit.ly/2I9IENz
28 June 2019	Порядок из хаоса вихрей		Russian news	http://bit.ly/3asl37d
29 June 2019	Decade-old physics confirmed by microscopic clone of Jupiter's large red spot		News Beezer	http://bit.ly/39c5YGx
30 June 2019	Kiwis help prove 70-year-old theory, with big implications	Matthew Davis	Multiple sites (2): NZ Herald, Central da Pauta, Fleej	http://bit.ly/3cjuyHp
30 June 2019	Physicists make progress on the bumpy ride to understanding turbulence	Shaun Johnstone	Forbes	http://bit.ly/2I9jq1O
1 July 2019	Bendable phones that are partially organic	Yuerui (Larry) Lu	Frogheart	http://bit.ly/39icJXu
1 July 2019	Order from chaos: Vortex studies are first proof of decades-old theory	Matthew Davis	Australian Research Council	
1 July 2019	Sensor unlocks avenue for early cancer diagnosis	Qiaoliang Bao	R&D Magazine	http://bit.ly/2IwvPgx
3 July 2019	A top scientist who overcame poverty is now mentoring Australia's brightest young minds	Eliezer Estrecho	SBS	http://bit.ly/2PBx3B
4 July 2019	Amazon fights emissions transparency in Australia, citing 'trade secrets'	Jared Cole	ABC	https://ab.co/2wh4MTA
4 July 2019	Stirring an impossible liquid	Errol Hunt	CSIRO Double Helix	http://bit.ly/2weeCpk
5 July 2019	First native ferroelectric metal observed	Pankaj Sharma, Feixiang Xiang	Materials World	http://bit.ly/38b2hPV

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5-10 July 2019	First observation of native ferroelectric metal	Pankaj Sharma, Feixiang Xiang	Multiple sites (24): 7th Space, Aardnews, Bio-engineer.org, Biotech News, Brightsurf, CRWE Tech, EIN Newsdesk, For the love of Info, General Physics Laboratory, Livescience, Newsemia, Newzzic, Science Daily, Science Tells, SciGlow, Supercomputing Online, NewsBeezer, Onties, Phys.org, Vaaju, Fars news agency, NCYT Noticias de la Ciencia, UNSW Science, Lab Manager	http://bit.ly/2wU4UbT
5 July 2019	Researchers realise 70 year old theory of turbulence in superfluids		Newcastle University	http://bit.ly/2VzHflk
5 July 2019	Study represents first example of native ferroelectric metal	Pankaj Sharma, Feixiang Xiang	AZo Quantum	http://bit.ly/2Vvi6yl
5 July 2019	Физики из Австралии создали "невозможный металл"		PIA Новости	http://bit.ly/2Tr3cq9
6 July 2019	Crean un metal 'imposible' para los ordenadores del futuro		Sputnik News	http://bit.ly/38diPXs
6 July 2019	Físicos de Australia han encontrado que la combinación de tungsteno y telurio tiene propiedades tanto metálicas como ferroeléctricas, lo que la hace uno de los 'materiales del futuro'.		Sputnik	http://bit.ly/2TbUzRx
6 July 2019	Researchers discover an unseen mode of GMR in 2D materials		Spintronics.info	http://bit.ly/2TbUzRx
8 July 2019	'Spintronic' research promises faster, more efficient computing	Sultan Albarakati, Cheng Tan, Dimi Culcer	RMIT	http://bit.ly/39dWdaC
8 July 2019	New magnetic properties unlocked for future spintronic applications	Sultan Albarakati, Cheng Tan	Multiple sites (5): Nanowork, Phys.org, Power systems design news, Science Bulletin, Science Magazine	http://bit.ly/2TbUBJ9

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8 July 2019	Primera observación de un metal ferroeléctrico nativo	Pankaj Sharma	Europa Press	http://bit.ly/2u14c0T
8 July 2019	Unlocking magnetic properties for future, faster low-energy spintronics	Sultan Albarakati, Cheng Tan, Alex Hamilton, Lan Wang, Dimi Culcer	7th space	http://bit.ly/2l6GFJV
9 July 2019	Order emerges from chaos in 2D vortices	Shaun Johnstone, Kristian Helmerson, Matthew Davis	Physics Today	http://bit.ly/2TvIQxj
10 July 2019	New carbon capture method turns CO ₂ back into coal	Torben Daeneke, Kourosh Kalantar-zadeh	Create Digital	http://bit.ly/2wU3Jcw
10 July 2019	Unlocking magnetic properties for future faster, low-energy spintronics	Cheng Tan, Sultan Albarakati	Nanowerk	http://bit.ly/2TbUBJ9
15 July 2019	Top 50: Chemistry and materials science		Nature Communications	https://go.nature.com/2PAWzR3
24 July 2019	Researchers find first native ferroelectric metal	Pankaj Sharma, Feixiang Xiang	Materials Today	http://bit.ly/32DQ70N
30 July 2019	Lights out: putting the ambient air oxidation of monolayer tungsten disulphide to bed	Michael Fuhrer	Phys.org	http://bit.ly/39cnJp1
30 July 2019	Researchers discover new spintronics mode in 2D heterostructure	Cheng Tan, Sultan Albarakati	Materials Today	http://bit.ly/2wQU06L
31 July 2019	Excitonic insulators: Experimental observation of a new class of materials	Xiaolin Wang, Michael Fuhrer, Zhi Li	Multiple sites (2): Phys.org, Longroom	http://bit.ly/3ahUbXo
31 July 2019	Experimental observation of a new class of materials: Excitonic insulators	Zhi Li, Xiaolin Wang, Michael Fuhrer	Multiple sites (4): 7th Space, Naowerk, Science Daily, Vaaju	http://bit.ly/2PD9l1g
31 July 2019	Lights out: Putting the ambient air oxidation of monolayer WS ₂ to bed	Michael Fuhrer	Nanowerk	http://bit.ly/2vrKxm7
1 August 2019	Pankaj Sharma : "Nanoelectronic switch!"	Pankaj Sah, Daniel Sando	UNSW Material Science and Engineering	http://bit.ly/2TaiSyZ
13 August 2019	Elusive excitonic insulator observed by researchers	Xiaolin Wang, Zhi Li, Michael Fuhrer, David Cortie	Multiple sites (3): University of Wollongong, Mirage News, National Tribune	http://bit.ly/2Tvm1Zv
1 September 2019	Physics at RMIT University	Jared Cole	Association of Asia Pacific Physical Societies	http://bit.ly/2Vy4HWf
13 September 2019	New method can 'print' large sheets of 2D piezoelectric material	Kourosh Kalantar-zadeh	Materials Today	http://bit.ly/39dzifB

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14-24 September 2019	Capsule to analyse what gases you hide in your stomach	Kourosh Kalantar-zadeh	Multiple sites (7): The Statesman, Newsgram, Newzzic, Odishatv, Outlook India, Sify, Zeebiz, IOL	http://bit.ly/39cJipA
16 September 2019	Don't laugh, fart science is important	Kourosh Kalantar-zadeh	Australia's Science Channel	http://bit.ly/2TatWMD
16 September 2019	Gutsy effort to produce comprehensive study of intestinal gases	Kourosh Kalantar-zadeh	Multiple sites (3): UNSW Newsroom, Science Daily, Newswise	http://bit.ly/32FxFw
16 September 2019	Tablet to analyse what gases you cloak to your abdomen	Kourosh Kalantar-zadeh	IICnews	http://bit.ly/2l81x3K
21 September 2019	Opportunity in the wind for gut research	Kourosh Kalantar-zadeh	Retail Pharmacy Magazine	http://bit.ly/3al9Kxv
26 September 2019	Human trials begin for first generation gas sensing capsule	Kourosh Kalantar-zadeh	RMIT News	http://bit.ly/2uFNdt6
11-14 October 2019	Liquid metals the secret ingredients to clean up environment	Kourosh Kalantar-zadeh	Multiple sites (7): Longroom, 7th Space, Phys.org, Science Daily, Times of India, Xinhua, AZO Materials	http://bit.ly/2vrKHdd
11 October 2019	Liquid metals the secret ingredients to nanotechnology-enabled metallurgy	Kourosh Kalantar-zadeh	Nanowerk	http://bit.ly/2uLaiO2
11 October 2019	Surprising secret ingredients to clean up environment: Liquid metals	Kourosh Kalantar-zadeh	SciTech Daily	http://bit.ly/3cJvHib
12 October 2019	Liquid metals point to novel ways of cleaning up major pollutants: Research	Kourosh Kalantar-zadeh	Multiple sites (2): China.org, Xinhua	https://on.china.cn/2llyBQ9
12 October 2019	Study says liquid metal can help us to clean environment	Kourosh Kalantar-zadeh	Asian News International	http://bit.ly/2uKLR3e
14 October 2019	Clean environment possible through liquid metal	Kourosh Kalantar-zadeh	Multiple sites (2): Asian Age, Deccan Chronicle	http://bit.ly/2PAFJI4
14 October 2019	Liquid metal catalysts produced in kitchen could remove environmental contaminants	Kourosh Kalantar-zadeh	AZO Cleantech	http://bit.ly/3cixCn6
14 October 2019	Så kan flytande metall minska koldioxidhalten i luften	Kourosh Kalantar-zadeh	NyTeknik	http://bit.ly/389SY2L
14 October 2019	So the liquid metal to reduce the level of carbon dioxide in the air	Kourosh Kalantar-zadeh	Techsite	http://bit.ly/2wRFk7o

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14-20 October 2019	Controlling the charge state of organic molecule quantum dots in a 2D nanoarray	Dhannesh Gopalakrishnan, Agustín Schiffrin	Multiple sites (10): Phys.org, Bioengineer.org, Photonics Online, Primeur Magazine, Shenango Valley Makers, CRWE World, Longroom, Nanowerk, Science Daily, 7th Space, Monash Science	http://bit.ly/2TtzRvc
15 October 2019	Cooking up decontaminants in your kitchen?	Kourosh Kalantar-zadeh	Technology Networks	http://bit.ly/3afSWrx
4 November 2019	The Monash Energy Institute 2019 Energy Conference	Tich-Lam Nguyen	Monash Energy Institute	http://bit.ly/2TCvsGI
12-18 November 2019	New spin directions in pyrite an encouraging sign for future spintronics	Yuefeng Yin	Multiple sites (17): Bioengineer.org, Brightsurf, Nanowerk, Phys.org, Science Daily, ScienMag, Scifi Paradise, Shenango , Valley Makers, Sortiwa Portal, The Longroom, 7th Space, Innovation Report, Semiconductor Digest, Sciligent, Science and Technology Research News, The Qubit Report, Australian Research Council Research Highlights	http://bit.ly/2l6czX3
14 November 2019	Carbon capture makes coal in one	Kourosh Kalantar-zadeh	Keep it Clever	http://bit.ly/2Tbwf24
20 November 2019	UNSW academics abound on list of world's most influential researchers	Kourosh Kalantar-zadeh	UNSW Newsroom	http://bit.ly/2T9PSra
25 November 2019	Ahead in the pollies: LinkedIn reveals most-viewed Australian members	Kourosh Kalantar-zadeh	Smart Company	http://bit.ly/386i96k
25 November 2019	Here are the 12 most viewed LinkedIn profiles in Australia's fastest growing industries	Kourosh Kalantar-zadeh	Business Insider	http://bit.ly/2TxJZTY
26 November 2019	LinkedIn names Australia's most viewed people	Kourosh Kalantar-zadeh	My Business	http://bit.ly/3cm6weM
28 November 2019	ANU researcher receives fellowship and innovation award	Yuerui (Larry) Lu	Australian National University	http://bit.ly/2wf7ljC

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9 December 2019	Royal Society of NSW honours climate change and chemical engineering researchers	Kourosh Kalantar-zadeh	UNSW Newsroom	http://bit.ly/2PEiRl0
9 December 2019	The Royal Society of New South Wales Awards	Kourosh Kalantar-zadeh	Royal Society of NSW	http://bit.ly/3ceuV69
16 December 2019	Mind the gap - new wide-bandgap topological insulator	Xiaolin Wang, Weiyao Zhao, Michael Fuhrer	Nanowerk	http://bit.ly/2PD2uFj
16 December 2019	Researchers reveal a wide band gap topological insulator	Xiaolin Wang, Weiyao Zhao, Michael Fuhrer	Multiple sites (3): Phys.org, Longroom, Vixra	http://bit.ly/2TpPV17
19 December 2019	Gordon Godfrey Workshop 2019		UNSW Physics News	http://bit.ly/3cgvfjP
20 December 2019	How quantum computing could beat climate change	Torben Daeneke	Multiple sites (2): Open Source Convergence, World Economic Forum	http://bit.ly/2v4XdiC
20-24 December 2019	No storm in a teacup - it's a cyclone on a silicon chip		Multiple sites (8): Bioengineer.org, Eurekalert, Longroom, Phys.org, Vixra, University of Queensland News, UQ School of Maths and Physics, SciGlow	http://bit.ly/3chjwCp
27 December 2019	LinkedIn Australia's Top 12 most engaged and viewed influencers	Kourosh Kalantar-zadeh	Women Love Tech	http://bit.ly/2l3TO6G
24 December 2019	Opening the door to new navigation technologies via quantum turbulence on a silicon chip		Innovation Toronto	http://bit.ly/3aem5Du
24 December 2019	Cyclone on a silicon chip advances "oldest unsolved problem in physics"		SciTech Daily, Websfavourite	http://bit.ly/3alatyJ
24 December 2019	No tempest in a teacup -- it's a cyclone on a silicon chip		Multiple sites (3): Science Daily, Herald Planet, The Qubit Report	http://bit.ly/3cdkcJ0