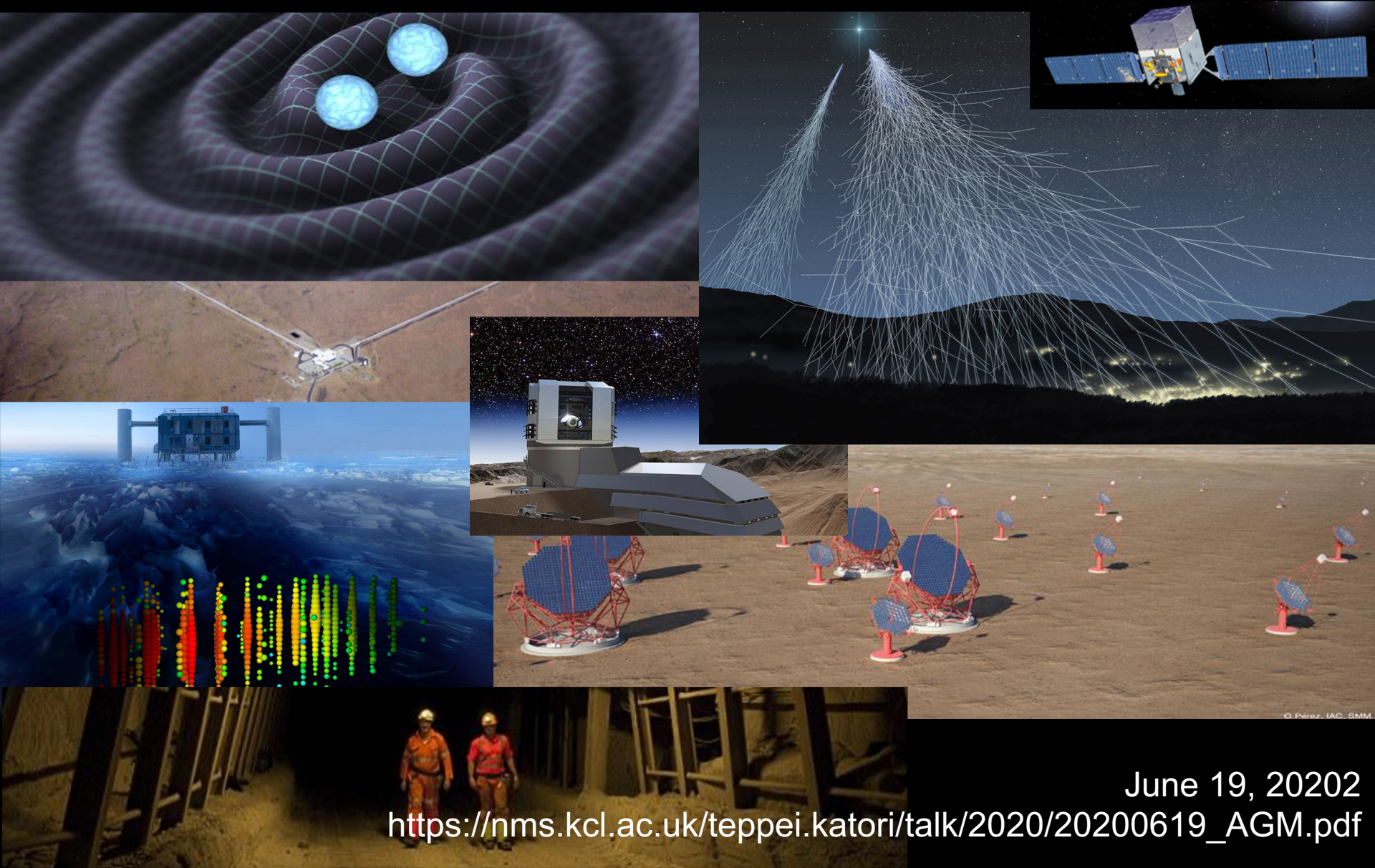


IoP APP Virtual Annual General Meeting



June 19, 2020
https://nms.kcl.ac.uk/teppei.katori/talk/2020/20200619_AGM.pdf

2019 APP Early Career Research Prize

Dr. Theresa Fruth (University of Oxford)

for

contributions on commissioning work of the LUX-
ZEPLIN (LZ) experiment



Astroparticle
Physics group

IOP
Institute of Physics

IOP Institute of Physics

Joint APP, HEPP and NP Conference

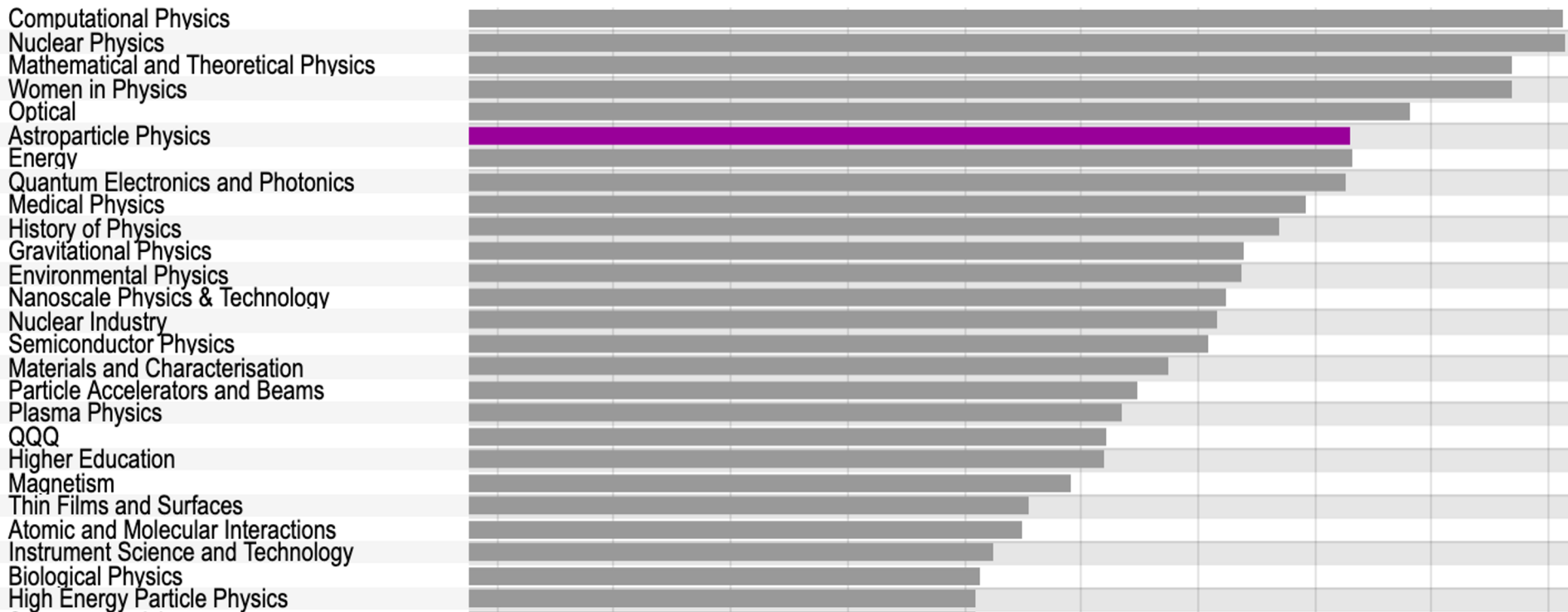
6–9 April 2020, University of Edinburgh, UK



IoP Astroparticle Physics

One of the largest working group in the IoP

- 1,660 members (6th largest group, 7% of all IoP members)

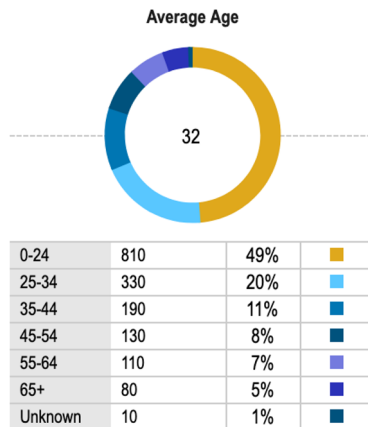


IoP Astroparticle Physics

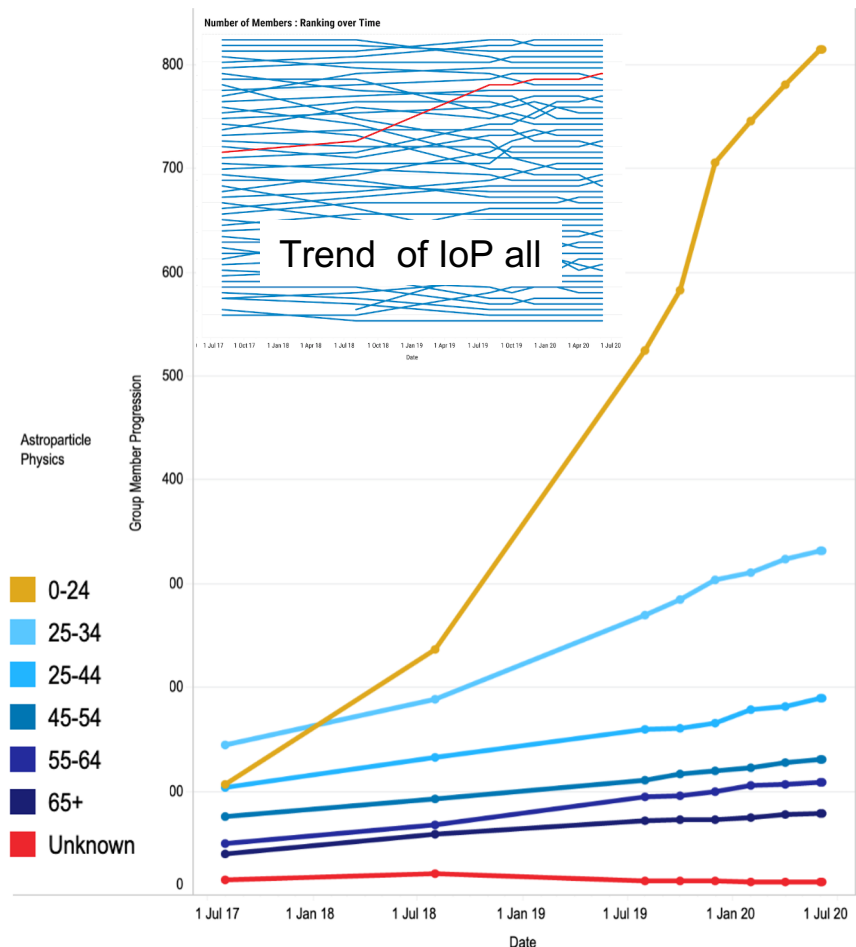
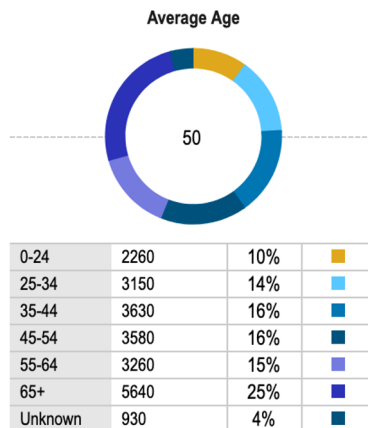
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IoP
APP



IoP all

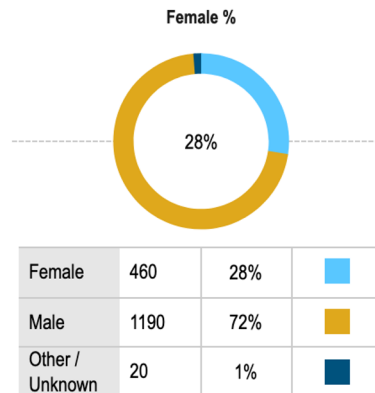


IoP Astroparticle Physics

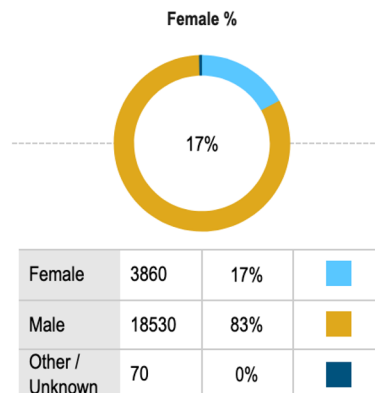
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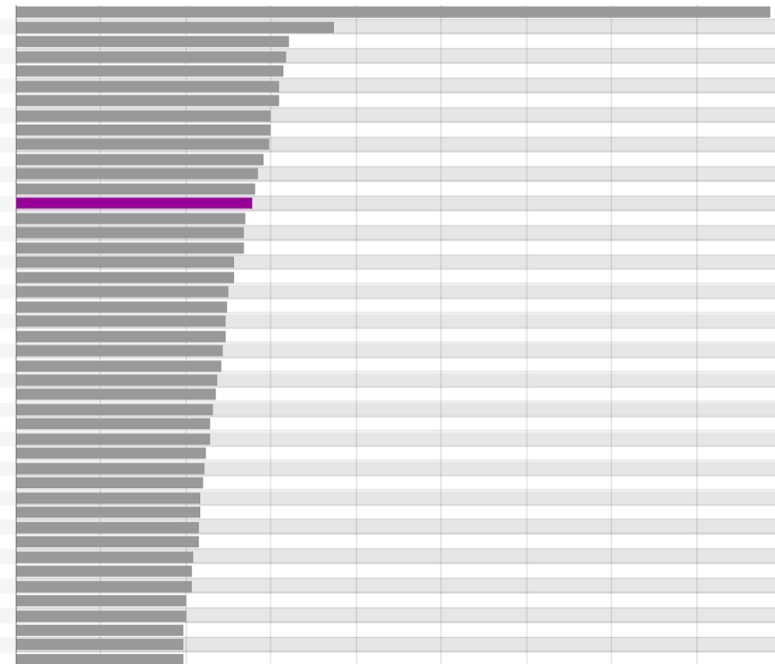
IoP
APP



IoP all



Women in Physics
 Physics Communicators
 Biological Physics
 Early Career Members
 Medical Physics
 Neutron Scattering
 Molecular Physics
 Shock Waves and Extreme Conditions
 Environmental Physics
 Higher Education
 Physics in Food Manufacturing
 Particle Accelerators and Beams
 Atomic and Molecular Interactions
 Astroparticle Physics
 BRSG: Magnetic Resonance
 Physical Acoustics
 Structural Condensed Matter
 Carbon
 Nuclear Physics
 Printing and Graphics Science
 QQQ
 History of Physics
 Liquids and Complex Fluids
 Gravitational Physics
 Electron Microscopy and Analysis
 Vacuum
 Superconductivity
 Nuclear Industry
 Plasma Physics
 Nanoscale Physics & Technology
 Energy
 Theory of Condensed Matter
 Magnetism
 Polymer Physics
 Low Temperature
 Materials and Characterisation
 Tribology
 Nonlinear and Complex Physics
 Applied Mechanics
 Mathematical and Theoretical Physics
 Ion and Plasma Surface Interactions
 Quantum Electronics and Photonics
 Dielectrics and Electrostatics
 Combustion Physics
 High Energy Particle Physics



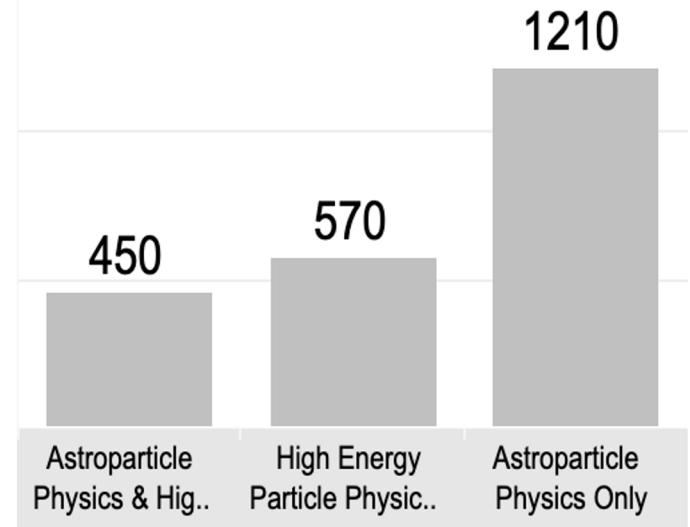
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- 27% of APP is HEPP member, 44% of HEPP is APP member

Rank of Groups by Crossover M..	List of Groups	M	F	All	
1	Astroparticle Physics	1190	460	1660	100%
2	Gravitational Physics	720	270	1000	60%
3	Mathematical and Theoretical Physics	580	240	830	50%
	Nuclear Physics	570	250	830	50%
5	Particle Accelerators and Beams	500	240	750	45%
6	Computational Physics	430	160	600	36%
7	Quantum Electronics and Photonics	380	160	550	33%
8	History of Physics	370	170	540	33%
	Plasma Physics	370	160	540	33%
10	Atomic and Molecular Interactions	340	180	530	32%
11	QQQ	340	170	520	31%
12	Energy	350	150	500	30%
13	Women in Physics	90	400	490	30%
14	Environmental Physics	290	160	460	28%
	Superconductivity	330	130	460	28%
16	High Energy Particle Physics	340	100	450	27%
17	Higher Education	280	140	420	25%
	Nuclear Industry	310	110	420	25%

Number of Members



IoP Astroparticle Physics

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Group strategy

- We need more activities to cover young audiences, any feedback?
- Workshop, outreach type event?

IoP Astroparticle Physics

New website (get involved → special interest groups → By discipline → APP)

<https://beta.iop.org/get-involved/special-interest-groups/astroparticle-physics-group>

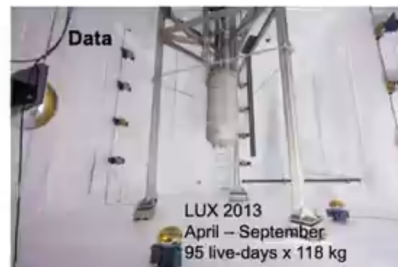
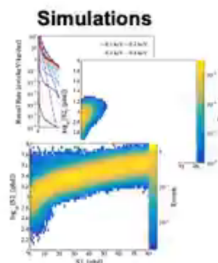
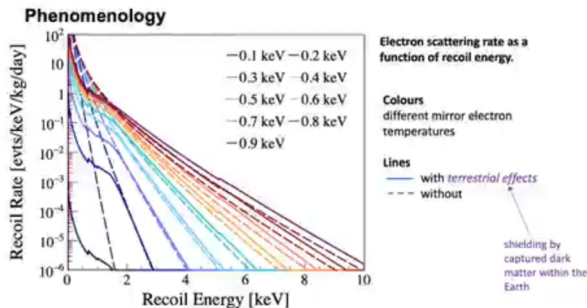
Facebook (925 likes, started Dec. 2015)

<https://www.facebook.com/IOPAPP/>

Twitter (16 followers, started May 2020)

https://twitter.com/IOP_APP

We are running the first SNS based event, “APP of the Day” #APPoftheDay



D. Akerib et al. (LUX Collaboration). First direct detection constraint on mirror dark matter kinetic mixing using LUX 2013 data. *Phys. Rev. D*, 101, 012003 (2020)

LUX


Elizabeth Leason
University of Edinburgh

IoP APP group committee members

Zoom


Emma Kehan (STFC)

- Engineering representative
- Underground lab




Teppei Katori (King's College London)

- Chair
- Neutrino astronomy




Cheryl Patrick (UCL)

- Newsletter committee chair
- Neutrinoless double beta decay




Sam Spencer (Oxford)

- Student representative
- Gamma-ray astronomy




XinRan Liu (Edinburgh)

- Treasurer
- Outreach committee chair
- Direct dark matter search




Garret Cotter (Oxford)

- Secretary
- Gamma-ray astronomy



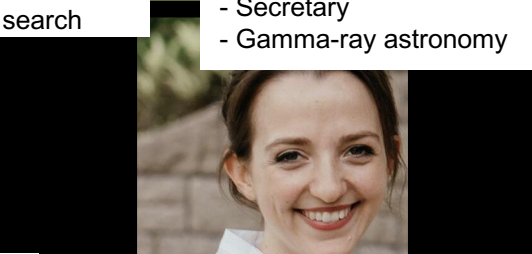
Christian McCabe (King's College London)

- DMUK contact
- Astroparticle physics theory



Theresa Fruth (UCL)

- Prize selection committee chair
- Direct dark matter search



New group member elections soon

- New student representative
- New ordinary committee member to cover all fields

IoP APP topics

Gravitational wave

Neutrino astronomy

APP

Gamma-ray astronomy

Neutrino-less
double beta decay

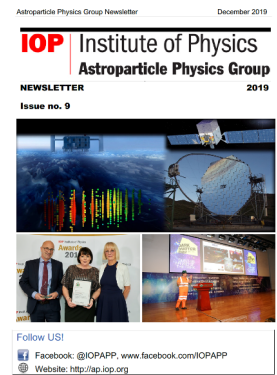
Direct dark matter search

Topics are not limited to these five

- Ultra-high-energy cosmic rays
- Radio, optical, x-ray astronomy
- Nuclear theory
- etc

2019 Newsletter

<https://beta.iop.org/get-involved/special-interest-groups/astroparticle-physics-group>



Newsletter

<https://beta.iop.org/get-involved/special-interest-groups/astroparticle-physics-group>

Newsletter will be published every year.
Please contact Cheryl Patrick
(c.patrick@ucl.ac.uk) if you have a topic
to be included in the next Newsletter,
will be published in early 2021.

Astroparticle Physics Group Newsletter

December 2019

IOP | Institute of Physics **Astroparticle Physics Group**

NEWSLETTER

2019

Issue no. 9



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Website: <http://ap.iop.org>

2021 APP-HEPP-NP joint annual meeting

2020 APP-HEPP-NP joint annual meeting was canceled due to the pandemic.

The next annual meeting will be

2021 April 12-15, Edinburgh

Details to be announced

The next AGM will be 2021 April 12 (Mon.) lunch time during the annual meeting.



12-15 April 2021

Abstract Submission Deadline

~~7th February 2020~~

Early Registration Deadline

~~6th March 2020~~

Registration Deadline

~~26th March 2020~~

<http://appheppnp2020.iopconfs.org/>



2020 APP thesis prize

IOP APP Thesis Prize 2020

<https://beta.iop.org/get-involved/special-interest-groups/astroparticle-physics-group/app-thesis-prize>

The call will be end around early 2021. Eligible nominees will have received a PhD in the area of Astroparticle Physics (theoretical or experimental) from an institution in the UK or Ireland in the area of Astroparticle physics. Broadly, 'Astroparticle physics' includes cosmic ray physics, neutrino and gamma-ray astronomy, dark matter, double-beta decay and nuclear astrophysics. In cases where eligibility is unclear, the prize awarding committee will adjudicate. The nominee must have been awarded the PhD within the last 2 years. Two nominators are required, one should be the student's supervisor or external examiner. At least one should be a member of the IOP Astroparticle Physics Group. Nominations should include a copy of the thesis in electronic form.

The call for the next early career prize is around end of 2021.

Funding opportunities

https://beta.iop.org/sites/default/files/2020-02/IoP_APP_Newsletter_2019_Final.pdf

IoP APP group funding for workshops & conferences

IoP APP financially support various workshops and conferences. Please write up one page proposal follow the instruction in the newsletter. If the event is organized by IoP APP group only, the guidance of subsidy is up to £500 (half-day event) or £1000 (one-day event), In the event that **more than one group** wishes to organise a joint meeting the recommended maximum subsidy will increase by 50%. For details, please contact IoP APP chair (Teppei Katori, teppei.katori@kcl.ac.uk).

IoP Research Student Conference Fund

IoP APP provides a financial support for IoP member PhD students to attend conferences with up to £300 is awarded for a single trip. Applications run on a quarterly basis. Please send your applications before; 1st March, 1st June, 1st September, 1st December. Applications must reach us three months in advance of the conference you plan to attend, for more information see:

https://www.iop.org/about/grants/travel-bursaries/research_student/page_38808.html

Please follow the link, download an application form, and return to supportandgrants@iop.org.

APP event list 2020

Summer: DMUK virtual meeting?

Oct. 31, Dark Matter Day 2020 (world wide)

Fall: Online joint workshop (TBA)

Dec. 16-18 NuPhys 2020

IoP APP student meeting
(March 9, 2020)



Treasury Report - Budget

For 2020 the Astroparticle Physics group ambitiously aimed to expand the range of conferences and workshops we supported by seeking a 60% increase in our annual budget which was approved. Then 2020 actually happened.

Purpose	Budget	Allocation
Committee Expense	£1,000	Committee members travel expenses: <ol style="list-style-type: none">1 face to face meeting usually at the location of the upcoming IoP APP/HEP conference1 teleconferences.
Group Event	£3,000	Budget to support 3 events: <ol style="list-style-type: none">1. IoP APP/HEP/Nuclear Conference (Host City - Edinburgh) is a 4 day - £750.2. Student Lead Conference a 1 day event at the IoP building - £750.3. Two workshops - £1500.

Treasury Report - Budget

Purpose	Budget	Allocation
External Events	£2,900	<p>Budget to support 5 events:</p> <ol style="list-style-type: none">1. Dark Matter UK conference a 1 day event - £750.2. NuPhys 2020 conference a 3 day event - £750.3. Dark Matter Day to support national effort to promote awareness of Dark Matter Physics - £300.4. Workshops on detector technology - £750.<ol style="list-style-type: none">a. liquid noble gas scintillation technologyb. detector technology on photon detection, including Cherenkon light (neutrino), scintillation (dark matter), and fluorescene (astronomy).5. PSD12 (Position Sensitive Detectors) Conference a 4 day event - £350.
Prizes	£300	<p>APP Group supports 2 prizes:</p> <ol style="list-style-type: none">1. The APP group Early Career Prize - £250.2. The poster prize for the IoP APP/HEP/Nuclear conference - £50.

Treasury Report - Spend

Purpose	Budget	Actual	Spend to Date
Committee Expense	£1,000	£0	1. Virtual Committee Meeting - £0
Group Event	£3,000	£140	<ol style="list-style-type: none"> 1. IoP APP/HEP/Nuclear Conference - Postponed to 2021. 2. Student led Conference a 1 day event at the IoP building - £140.
External Events	£2,900	£0	1. PSD12 Conference - Postponed to 2021.
Prizes	£300	£300	<p>APP Group supports 2 prizes:</p> <ol style="list-style-type: none"> 1. The APP group Early Career Prize - £250. 2. The poster prize for the IoP APP/HEP/Nuclear conference - £50.