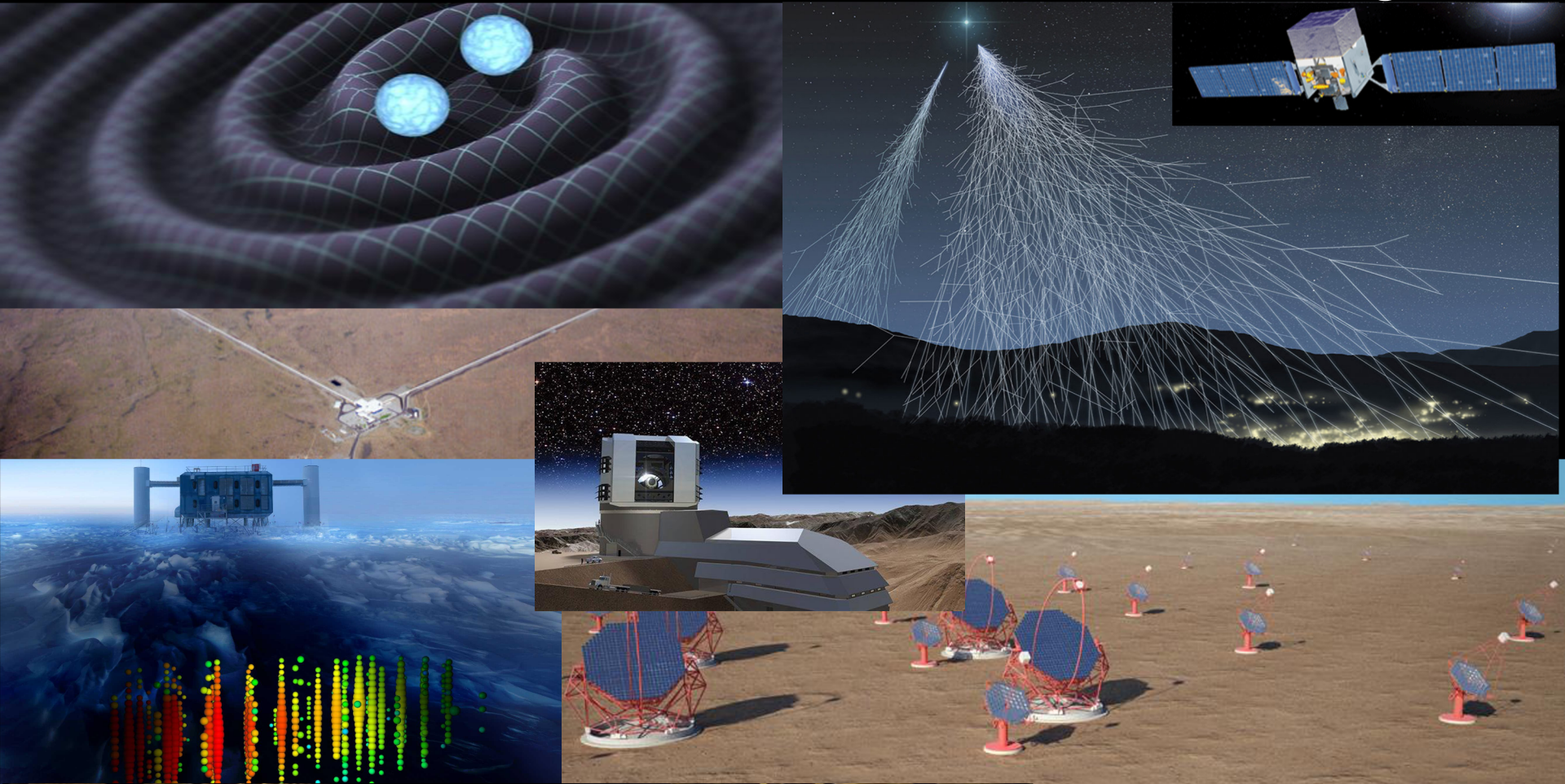


IoP APP Virtual Annual General Meeting



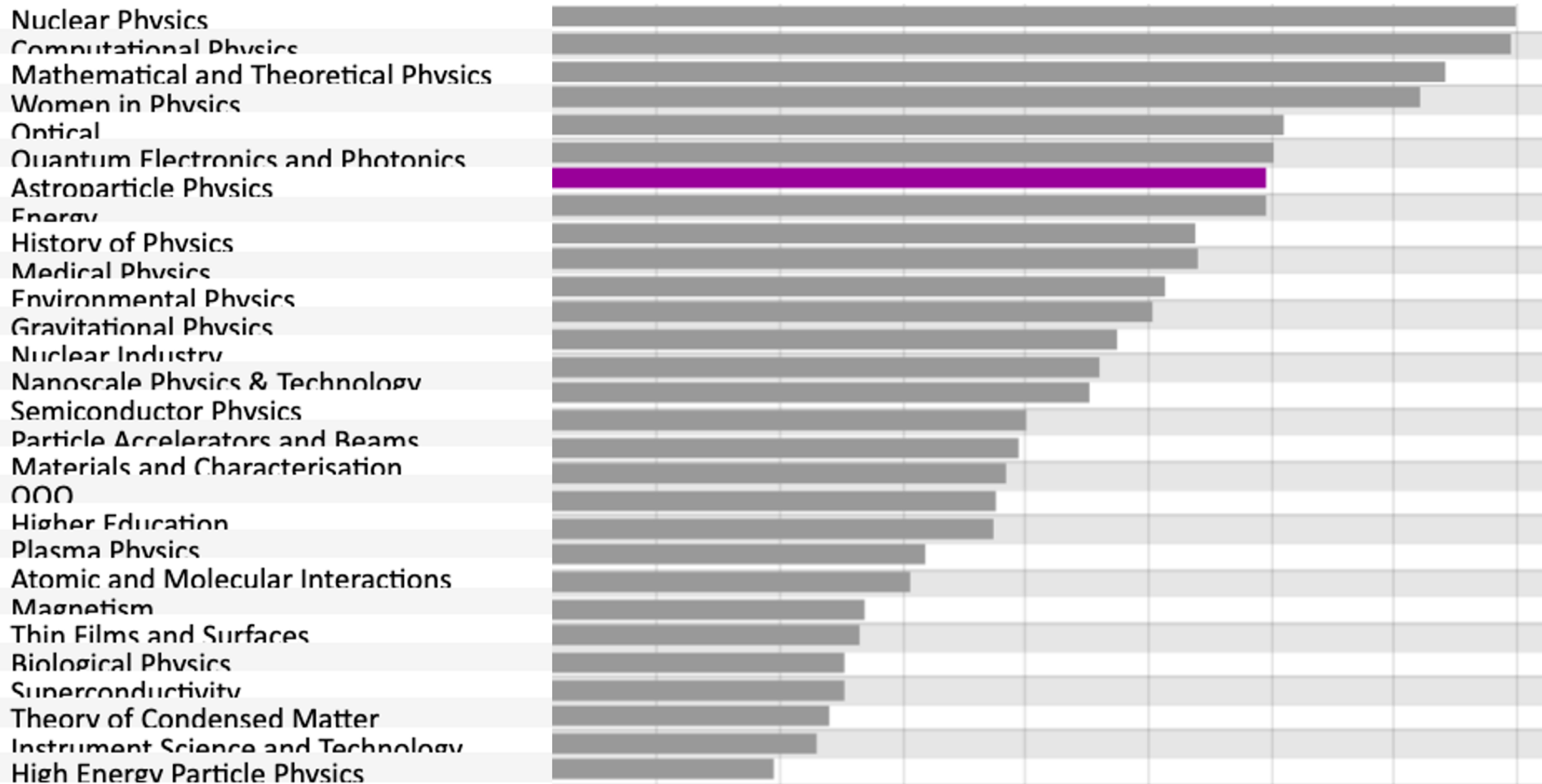
© Pérez, IAC, SMM

April 14, 2021

IoP Astroparticle Physics by the numbers

One of the largest working group in the IoP

- 1,790 members (7th largest group, 8% of all IoP members)



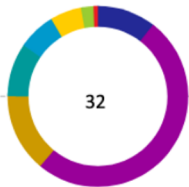
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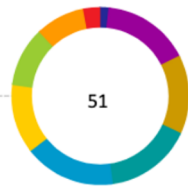
IoP APP

Average Age



IoP all

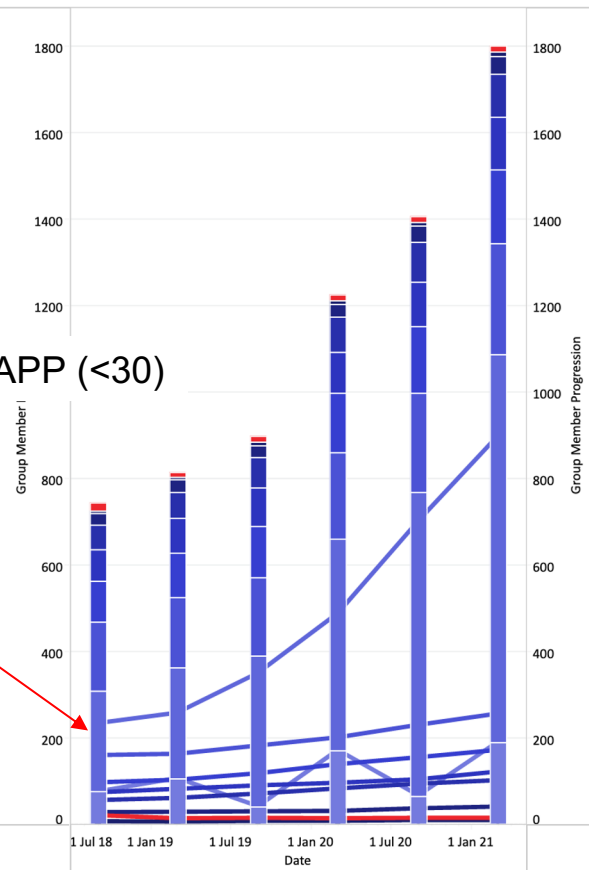
Average Age



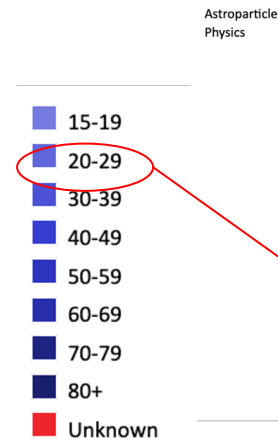
15-19	190	11%	■
20-29	900	50%	■
30-39	250	14%	■
40-49	170	9%	■
50-59	120	7%	■
60-69	100	6%	■
70-79	40	2%	■
80+	<10		■
Unknown	10	1%	■

15-19	370	2%	■
20-29	3460	16%	■
30-39	3110	14%	■
40-49	3440	16%	■
50-59	3600	17%	■
60-69	2730	13%	■
70-79	2350	11%	■
80+	1950	9%	■
Unknown	630	3%	■

Age Bracket - Line



Trend of IoP APP (<30)

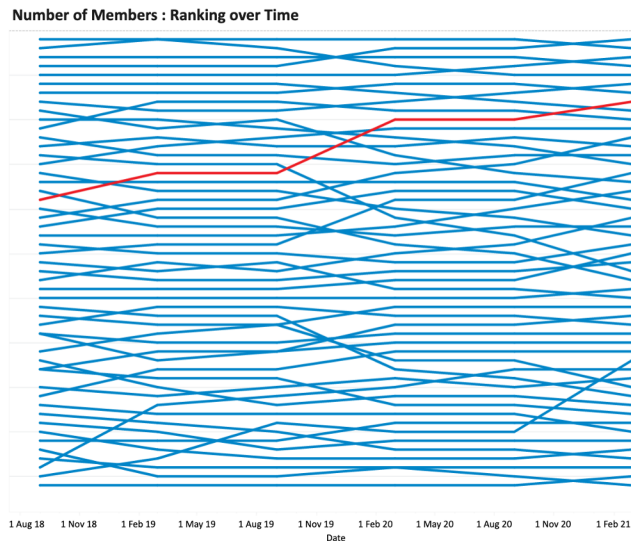


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Trend of IoP APP (<30)



Location of IoP APP (<30)

Member Locations
Darker colours suggest a greater proportion of members



Boulby Lab team

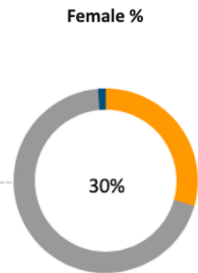





IoP Astroparticle Physics by the numbers

One of the largest working group in the IoP

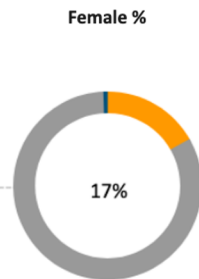
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- Better gender balance (F=30%, IoP average is F=17%)




IoP APP



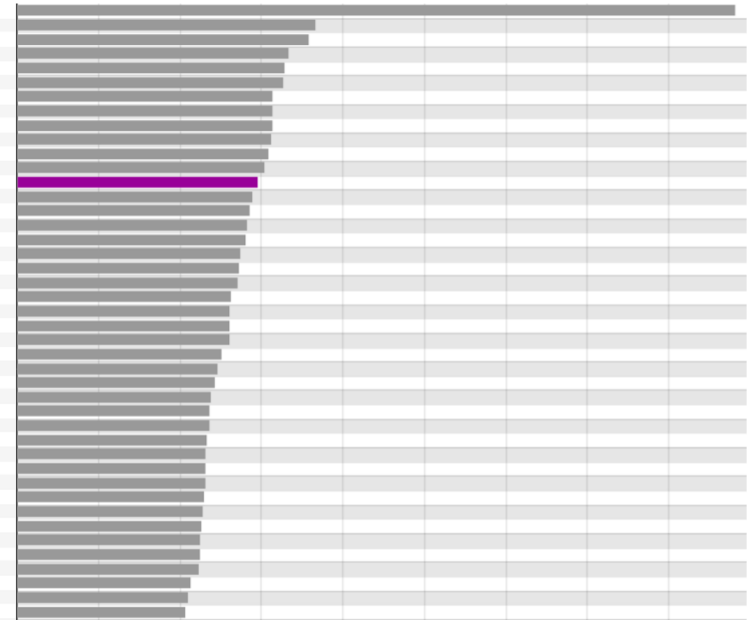
Female	530	30%	
Male	1240	69%	
Other / Unknown	20	1%	

IoP all



Female	3670	17%	
Male	17860	83%	
Other / Unknown	110	1%	

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

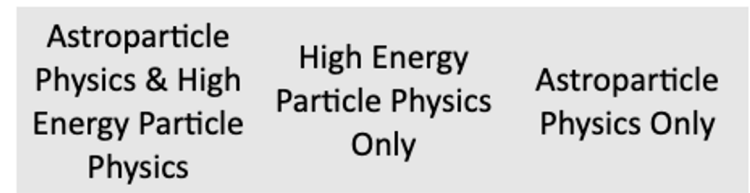


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- Better gender balance (F=30%, IoP average is F=17%)
- 27% of APP is HEPP member, 46% of HEPP is APP member

Rank of Groups by Crossover Membership	List of Groups	M	F	All	
1	Astroparticle Physics	1240	530	1790	100%
2	Gravitational Physics	770	320	1100	61%
3	Nuclear Physics	630	300	940	53%
4	Mathematical and Theoretical Physics	630	290	930	52%
5	Particle Accelerators and Beams	520	290	810	45%
6	Computational Physics	490	190	690	39%
7	Atomic and Molecular Interactions	410	210	630	35%
	Quantum Electronics and Photonics	440	180	630	35%
9	History of Physics	410	210	620	35%
10	Plasma Physics	400	210	610	34%
11	QQQ	390	200	600	34%
12	Energy	410	170	580	32%
	Women in Physics	90	470	580	32%
14	Environmental Physics	350	210	560	31%
15	Superconductivity	340	160	510	28%
16	Nuclear Industry	370	130	500	28%
17	High Energy Particle Physics	360	120	490	27%



490

570

1300

IoP Astroparticle Physics by the numbers

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

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

Facebook (1274 likes, 2021/04/13)

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

Twitter (69 followers, 2021/04/13)

https://twitter.com/IOP_APP

We ran the first social media based event, “APP of the Day” [#APPoftheDay](#)

“CTA-UK science meeting (June 24-25)” is the most viral post we ever made

IoP APP is quite successful to reach out to broad audience

IOP Institute of Physics Astroparticle Physics group
Institute of Physics Astroparticle Physics added an event.
22 Mar · 🌐

Like Comment Share

18,025 people reached > Promote Event

You and 104 others

IoP APP group committee members



Emma Meehan (Boulby)
- 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



Matt Roth (Australia National U)
- Engineer/astronomy
- Global member



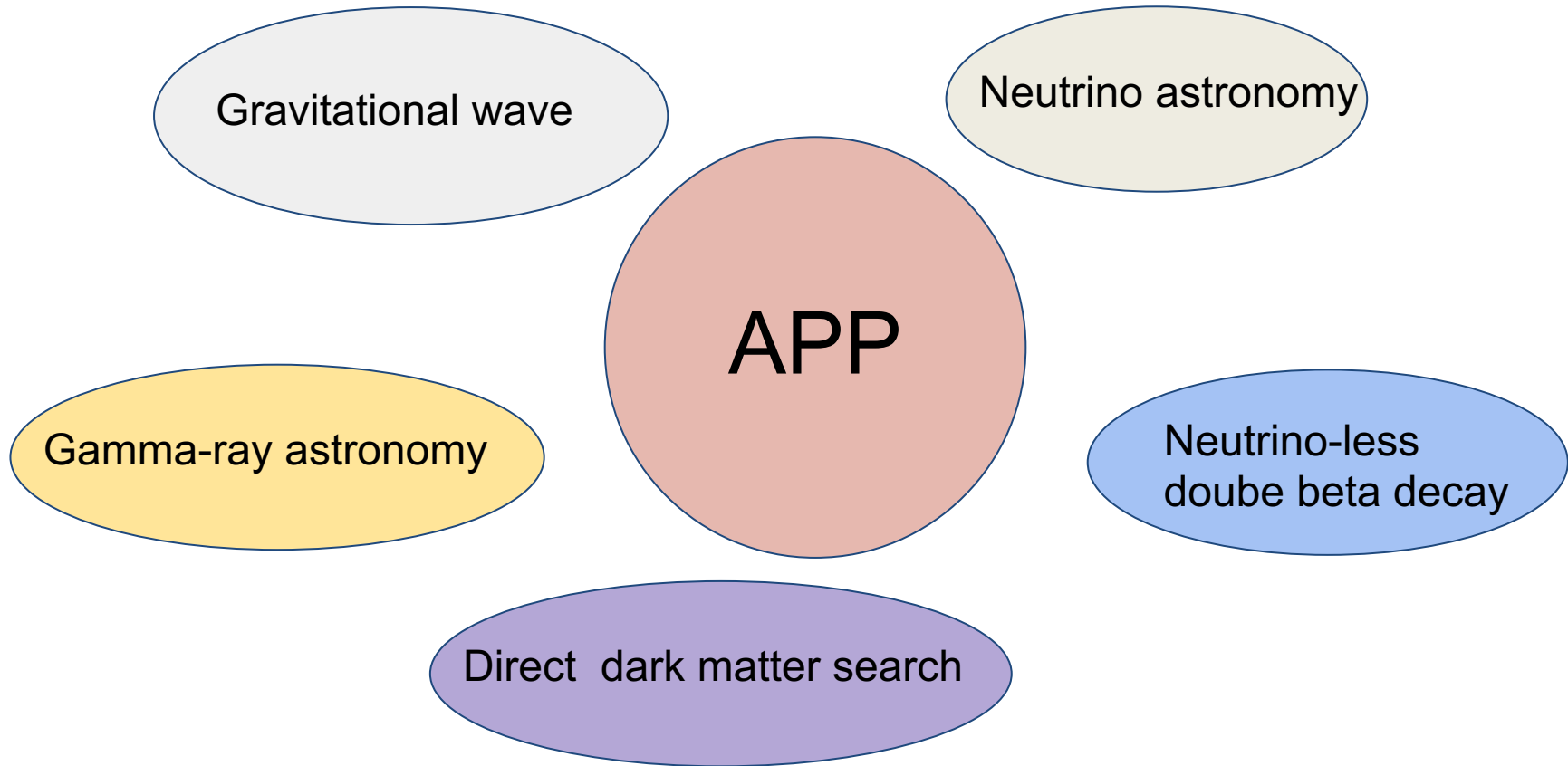
Christopher McCabe (King's College London)
- DMUK contact
- Astroparticle physics theory



Theresa Fruth (UCL)
- Prize selection committee chair
- Direct dark matter search

Not covered area
- Gravitational Wave
- Nuclear astronomy

IoP APP topics



Topics are not limited to these five

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

2020 Newsletter

<https://www.iop.org/physics-community/special-interest-groups/astroparticle-physics-group>

2020 Newsletter



Cheryl Patrick (UCL)
- Newsletter committee chair

<https://www.iop.org/physics-community/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 2022.

Astroparticle Physics Group Newsletter

December 2020

IOP | Institute of Physics Astroparticle Physics Group

NEWSLETTER

2020

Issue no. 10

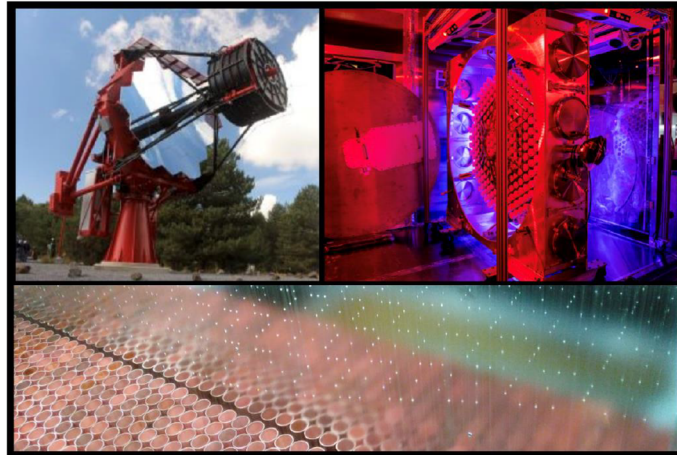




Image credits: ASTRI consortium; M. Kapust (Sandford Lab); SuperNEMO collaboration

Follow us!

 Facebook: @IOPAPP, www.facebook.com/IOPAPP

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

Astroparticle Physics Group Newsletter

December 2020

Content

Annual IoP meeting announcement
Editorial and Words from the Chair
Meet the Committee
IOP APP Prizes: Awarded and Upcoming

Winners:

- IOP APP Early career prize 2019
- IOP APP of the Day social-media prize

Upcoming:

- IOP APP Early Career Prize 2021
- IOP APP Thesis Prize 2020

Physics Highlights of 2020

- Gravitational waves and gamma-ray bursts
- Neutrino astronomy

Experimental Spotlights

- Cherenkov Telescope Array
- NEWS-G
- Hyper-Kamiokande

Events

- IOP APP Group student meeting
- Dark Matter Day

2020 – a year of challenges

- Black Lives Matter, racism and inequality in STEM
- Physics in the time of Covid

Funding Opportunities

2020 APP Thesis Prize



Theresa Fruth (UCL)
- Prize selection committee chair
- Direct dark matter search

IOP APP Thesis Prize 2020

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



2020 APP Thesis Prize

Dr. Jost Migenda (University of Sheffield)

Thesis title:

Supernova Model Discrimination with Hyper-Kamiokande



Astroparticle
Physics group

IOP
Institute of Physics

IOP Institute of Physics

ONLINE EVENT

Joint APP, HEPP and NP Conference



12-15 April, 2021

2021 APP ECR prize



Theresa Fruth (UCL)
- Prize selection committee chair

IOP APP Early Career Researcher Prize 2021

<https://www.iop.org/get-involved/special-interest-groups/astroparticle-physics-group/app-early-career-prize>

The call will be end around early 2022. Details will be circulated later of this year.

Nominees are early career researchers who:

- work in the area of astroparticle physics (both experiment and theory)
- work in any institution in the UK and Ireland
- have five years or less postdoctoral experience (allowing for career breaks)

Nomination process

- Two nominators are required. At least one should be from an institution that is not the nominee's current employer.
- Nominations must include three papers that the nominee has worked on in the preceding two years. You can send us printed articles or URLs to web pages.
- The papers must have been published, or accepted for publication, in a peer reviewed or refereed journal.

Funding opportunities



XinRan Liu
(Edinburgh)
- Treasurer

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.

Treasury Report - Budget



XinRan Liu
(Edinburgh)
- Treasurer

For 2021 the Astroparticle Physics group carries on the same budget, £7200.

- £1000 Committee expense
- £3000 Group event support
- £2900 External event support
- £300 Prizes

So far we spent funding to support this conference (£750 allocation)

2022 APP-HEPP joint annual meeting

2022 APP-HEPP joint annual meeting
will be hosted by

Rutherford Appleton Laboratory

Details to be announced later of this
year

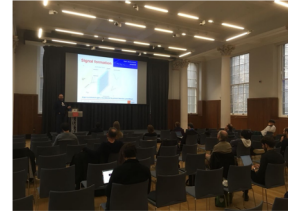


APP group event list 2021

April - IoP APP-HEPP-NP Conference

APP-neutron physics-nuclear physics joint workshop, "Neutron Physics in Neutrino Astronomy"(2019)

<https://www.iopconferences.org/iop/frontend/reg/home.csp?pageID=923241&eventID=1445>



June - CTA-UK science meeting, virtual

Summer - Dark Matter UK conference

September - PSD12 (Position Sensitive Detectors) conference, Birmingham

October - Dark Matter Day, worldwide

December - NuPhys 2021 conference, London

APP student conference (2020)

<https://www.iopconferences.org/iop/frontend/reg/thome.csp?pageID=937708&eventID=1465>

Budget allocation for additional 1-2 workshops (hopefully cross-group workshops), and a student conference. We are still affected by the pandemic and all plans are very flexible.



IoP Limit less

APP is one of the youngest group, full of energy with extremely interesting science. Can we do anything with IoP limit less activity?

<https://www.iop.org/about/strategy/limit-less>

2.6% girls choose A-level physics (8.6% boys)

8.1% of students from the highest income group choose physics A-level, but 2.7% from the lowest income group

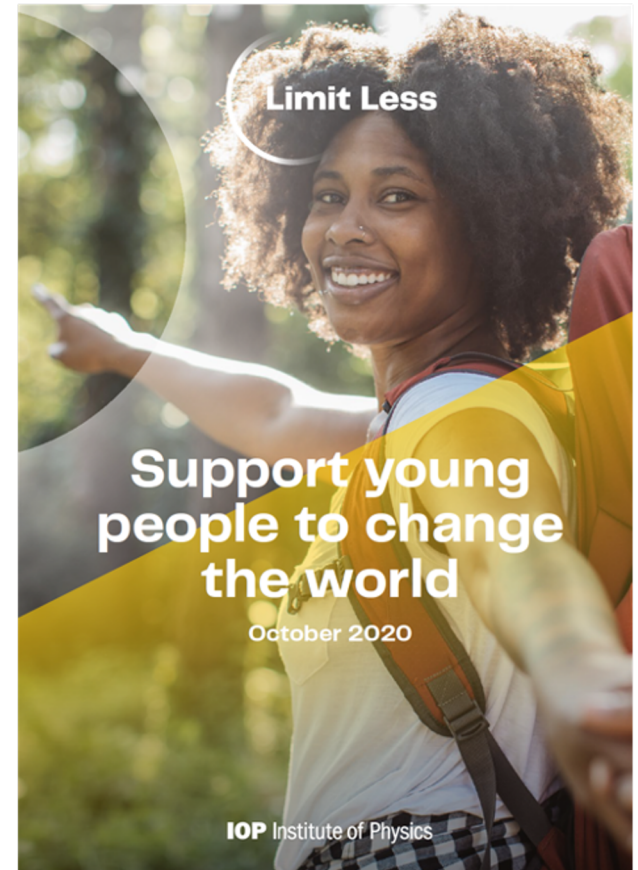
Ethnicity background dependence
Caribbean < European, African < Asian

“I was told I was not smart enough for physics and that if I didn’t want to be an engineer there was no point.”

“When you hear of someone who’s done A-level physics or as a degree you go ooh, you must be clever”

Father in focus group, Wales

“I was told by a close female family member that physics was boring and a waste of time. I found out I was actually really good at it. Absolutely one of the most interesting and fascinating fields of study.”



APP Outreach activity



XinRan Liu (Edinburgh)
- Outreach committee chair

Outreach material production?

Future of Dark Matter Day?

Anything else?