

## Dr Emma Chapman – Curriculum Vitae

**Work Address:** Astrophysics Group, Imperial College London, Blackett Laboratory, Prince Consort Road, London SW7 2AZ, United Kingdom

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**Research Interests:** Foreground mitigation; Epoch of reionisation; Cosmology; Radio interferometry and data reduction; Signal processing

### Career Summary

**Royal Society Dorothy Hodgkin Fellowship**                      **Imperial College London**                      **Oct 2018 – Present**

My fellowship is centred around research into the Epoch of Reionisation (EoR), contributing to its detection through membership of the LOFAR core EoR team and leading a focus group on foreground removal within the SKA working group. I supervise one PhD student, landeep Hothi.

**Royal Astronomical Society Research Fellowship**                      **Imperial College London**                      **Oct 2015 – Oct 2018**

**Postdoctoral Researcher**                      **University College London**                      **Dec 2013 – Oct 2015**

SKA-funded postdoctoral research position, continuing personal research and contributing to the organization of the SKA EoR pipeline within the SKA SDP consortium.

**PhD**                      **University College London**                      **Oct 2010 – Dec 2013**

Thesis title: Seeing the Light: Foreground Removal in the Dark and Dim Ages, supervised by Dr Filipe Abdalla.

**MPhys**                      **Durham University**                      **Oct 2006 – July 2010**

Integrated masters in Theoretical Physics awarded as a First. Overall Firsts achieved in every year and every module with an overall degree percentage of 81%.

### Research Prizes and Major Grants

**2018** Royal Society Research Enhancement Award, £97,000

**2018** Royal Society Dorothy Hodgkin Fellowship (accepted), £635,000

**2018** STFC Ernest Rutherford Fellowship (declined)

**2018** Royal Society Athena Medal and Prize, £5000

**2017** L'Oréal Women in Science Fellowship, Highly Commended, £1000

**2016** CAASTRO visitor grant, £7000

**2015** Royal Astronomical Society Fellowship

**2014** The Shell and Institute of Physics Award for the Very Early Career Woman Physicist of the Year: winner, £1000

**2013** UCL Chris Skinner Department of Physics and Astronomy Thesis Prize: winner

**2013** Royal Astronomical Society Michael Penston Thesis Prize: runner up

**2010** Durham University J.B.Chalmers Prize: winner for exceptional Physics degree marks

**2009** Durham University Award for Outstanding Achievement in Physics: winner for consistently achieving grades of over 80%.

### Research Presentations

14 invited talks, 7 accepted presentations, 2 posters.

Recent notable talks:

- Cosmological Analyses Featuring Galactic Foreground Emission, May 2020, **Invited review**

- University of Hertfordshire, February 2020, **invited seminar**
- Queen Mary University of London, Astronomy colloquium, Oct 2018, **invited seminar**
- IAU Symposium 333: “Peering towards Cosmic Dawn”, Dubrovnik, Croatia, October 2017, **invited review**
- University of Birmingham, Astronomy colloquium, May 2017, **invited seminar**
- University of Nottingham, Astronomy colloquium, February 2017, **invited seminar**
- CAASTRO annual retreat, Australia, December 2016, **invited review**

## **Professional Services**

### **Leadership and Project Participation**

- Chair of SKA office inquiry into the effect of possible decrease in maximum baseline (8 members)
- Focus group leader within SKA-EoR working group
- LOFAR-EoR core member
- SKA-SDP

### **Conference Organisation**

- The Epoch of Reionisation: UK community update, RAS Specialist Meeting, Feb 2018 (organiser)
- “Science at Low Frequencies IV”, Sydney, December 2017 (SOC)
- IAU Symposium: Peering towards the Cosmic Dawn, May 2017, Croatia (SOC)
- EoR Algorithms, June 2016, Cambridge (SOC)

### **Committee Work**

- Organised creation of Imperial College Department of Physics Welfare Committee, 2018
- 1752 Group member, involved in drafting best practice harassment and bullying policy with UUK, UCU and NUS, 2017 – present (see e.g. <https://www.theguardian.com/education/2017/mar/05/students-staff-uk-universities-sexual-harassment-epidemic>)
- Imperial College Sexual Harassment Policy Reform Working Group, 2018 - present
- Imperial College Equality and Diversity Forum, 2017 - present
- Imperial College London JUNO committee culture focus group leader, 2015 - 2019
- Institute of Physics Diversity and Inclusion Committee member, 2013 - 2017
- UCL JUNO committee, 2014 – 2015

### **Media**

- National Geographic, October 2019, <https://www.nationalgeographic.co.uk/science-and-technology/2019/10/once-most-famous-scientists-were-men-thats-changing>
- Guest on Victoria Derbyshire, LBC, Sky News and Channel 5 News, MP's call for a ban on NDAs, June 2019
- Guest on Radio 4 Inside Science end of year special representing Astrophysics, Dec 2018
- Invited Commentary to Physics Today December Issue, <https://physicstoday.scitation.org/doi/10.1063/PT.3.4080>
- Guest on Radio 4 Inside Science discussing women in STEM initiatives, August 2018
- “Report harassment or risk losing funding, says top UK science funder”, March 2018, <https://www.nature.com/articles/d41586-018-05071-7>
- “Cosmic dawn: astronomers detect signals from first stars in the universe”, February 2018, <https://www.theguardian.com/science/2018/feb/28/cosmic-dawn-astronomers-detect-signals-from-first-stars-in-the-universe>
- Guest on BBC Radio 4 Woman’s Hour on topic of sexual misconduct, February 2018
- Guest on sexual harassment in academia and Hollywood, BBC World News, BBC UK News, BBC Radio 4 “The World Tonight” (October 14/15 2017)

- Physics World Blog Contribution: <http://blog.physicsworld.com/2017/07/28/bias-stereotyping-and-harassment-what-women-battle/#more-14619>
- Contribution to “More universities must confront sexual harassment” editorial in Nature 547, 379 (27 July 2017) doi:10.1038/547379a
- Scientific advisor for Pioneer Productions, “The Universe and Me”, July 2017
- Panel member for Radio 4 “All in the Mind: Unconscious Bias” episode, a Royal Institution event (03 March 2017)
- Institute of Physics News article on PhD student culture, May 2015: [http://www.iop.org/news/15/may/page\\_65667.html](http://www.iop.org/news/15/may/page_65667.html)

### **Recent Outreach**

#### Science

- “First Light”, popular science book to be published by Bloomsbury, November 2020
- Babble Talks, June 2019 and Jan 2020
- Imperial Festival, Day in the Life talks, June 2019
- Friends of Imperial College London, “First Stars”, October 2018
- New Scientist Live, “First Stars”, September 2018, largest audience of the day.
- Euroscience Open Forum, “The Square Kilometer Array: showing the early stages of our Universe”, July 2018
- Cheltenham Science Festival, Panel Member, “Beyond Light: The Future of Astronomy”, June 2018

#### Diversity

- Cheltenham Science Festival, Panel Member, “Workplace Bullies”
- Gamechangers Conference, Turing Institute, “How to Moan Effectively and Effect Change”, September 2018
- Institute of Physics JUNO Diversity and Harassment Conference, “Sexual Misconduct in UK Universities”, August 2018
- “How do we Solve Science's Problem with Women?”, Wellcome Collection, February 2018
- Panel member for “Bias in Science”, International Conference for Women in Physics, Birmingham, July 2017