
BIOGRAPHY

Abrar Ali holds a PhD degree in Mathematical Science from City, University of London (2019). Her research interest lies in the field of Astrophysical Fluid Dynamics, particularly understanding the interactions between a plasma and magnetic field in astrophysical objects as the Sun. Her research frequently makes use of computational techniques to solve the governing equations of the system of interest. The numerical solution of these equations is currently carried out at HPC facilities in the UK such as the Cambridge Service for Data Driven Discovery (CSD3). Abrar is a fellow of the Royal Astronomical Society (FRAS), member of the European Astronomical Society (EAS) and an associate fellow of the Higher Education Academy (AFHEA). Further, she is a member of the International Astronomical Union (IAU). To date, Abrar has delivered her research in several conferences/events within the UK and Kuwait, including University of Cambridge, the UK Parliament, Imperial College London, and Sheikh Abdullah Al-Salem Cultural Centre.

PUBLICATIONS

Abrar, A.A. and Silvers, L., 2022. On the interaction of buoyant magnetic structures with convective plumes. *International Astronomy and Astrophysics Research Journal*. **4**, 28.

Abrar, A.A. 2021. Dirasat ean aldinamikiaat fi batin alshams [A Study on the Dynamics Inside the Sun]. Retrieved from: <https://arsco.org/article-detail-32000-5-0>

Abrar, A.A. and Silvers, L., 2020. The effect of temperature-dependent viscosity and thermal conductivity on the onset of compressible convection. *Geophysical and Astrophysical Fluid Dynamics*. **115**, 207.

Abrar, A.A. and Silvers, L., 2018. The effect of time-dependent γ -pumping on buoyant magnetic structures. *Geophysical and Astrophysical Fluid Dynamics*. **112**, 414.

EDUCATION

Mathematics Research Programme (2015- 2019): PhD in Astrophysical Fluid Dynamics – *City University London*

Teaching Programme (2016): Introductory Certificate in Academic Practice – *City University London*

Degree (2011-2015): MMath (Master of Mathematics) Mathematical Sciences – *City University London, (Class I)*.

PROFESSIONAL DEVELOPMENT

March 2020 – March 2021: FutureLearn, Ltd.

- *Outline: FutureLearn Ltd. is an online learning platform that allow users to take courses offered by accredited universities and training programs, to acquire certain skills.*
- Courses:
 - Learn About Weather – *University of Exeter, Met Office and The Royal Meteorological Society (2020)*.
 - Starting a Business – *University of Leeds (2020)*.
 - Our Solar System and Beyond: Teaching Primary Science – *Royal Observatory Greenwich (2020)*.
 - Science Communication and Public Engagement – *EIT Food, University of Turin, Universidad Autónoma de Madrid and European Institute of Innovation and Technology (EIT) (2020)*.
 - Go Solar PV: The Business Potential of Solar Photovoltaics – *EIT Innoenergy and The Spanish Energy Club (2020)*.

CAREER SUMMARY

September 2022 – January 2023: Adjunct Faculty – Australian University (Kuwait)

- *Outline: The position involves teaching responsibilities and the engagement in other scholarly activities beyond teaching.*
- *Work/Responsibilities:*
 - Preparing and delivering lectures.
 - Marking and grading scripts.
 - Assisting with departmental duties such as proctoring.

September 2021 – December 2021: Assistant Professor – American University of the Middle East

- *Outline: The position involves teaching responsibilities and the engagement in other scholarly activities beyond teaching.*
- *Work/Responsibilities:*
 - Preparing and delivering lectures.
 - Marking and grading scripts.
 - Assisting with various departmental duties.
 - Conducting research and publishing.
 - Providing guidance and supervision to students.

April 2021 – January 2022: British Council Kuwait Exams Invigilator

- *Outline: The role involves ensuring that any test administered by the British Council runs smoothly on the test day/s and that all assigned test day duties and standards are met.*
- *Work/Responsibilities:*
 - Invigilate examinations to the standard required by the British Council and the relevant Exams Boards.
 - Complete and maintain accurate records of exam assignments.

- Follow all relevant guidelines and policies in the areas of: Data Protection, Child Protection, Health & Safety, Equal Opportunities and Diversity, and Anti-Fraud.

October 2015 – October 2019: City, University of London Visiting Lecturer

- *Outline: The position involves assisting lecturers within the Department of Mathematics by performing teaching and other-teaching duties.*
- *Work/Responsibilities:*
 - Prepare and deliver tutorial classes and labs.
 - Marking and grading scripts.
 - Modules include: Functions, Vector & Calculus (FVC), Algebra, Programming & Computational Mathematics, Mathematics for Actuarial Science, Mathematical Typesetting.

June 2014 – August 2014: Undergraduate Summer Research - City, University of London

- *Outline: A summer project funded by the Royal Astronomical Society (RAS) with the purpose of motivating undergraduates who are considering research as a career to work in a research environment.*
- *Work/Responsibilities:*
 - Explore the subject of magnetohydrodynamics and its relevance to the topic of research.
 - Be familiar with the programming language to run computer codes.
 - Use analytical tools to interpret and report the results.

April 2014: City, University of London Green Impact Auditor

- *Outline: Green Impact is an environmental accreditation programme with an awards element, designed to encourage, support and celebrate departments in making environmental improvement*
- *Work/Responsibilities:*
 - Attending training accredited by IEMA on environmental initiatives.
 - Supporting the departments in its Green Impact actions according to its requirements and the agreed goals.
 - Visit the departments and conduct audits.

October 2012 – July 2015: Student Ambassador for City University London

- *Outline: The role of a Student Ambassador is sharing own experiences to give people interested in university an idea of what it is like being a student.*
- *Work/Responsibilities:*
 - Representing City University at various events ranging from Campus Tours to Open Days to UCAS Fairs.
 - Speaking to prospective students, parents and career advisors about general university life and courses at City University London.
 - Travelling to external locations, setting up stalls at fairs and giving out information.

October 2012: Santander UK plc. – City University Branch Work Placement

- *Outline: Santander provides a full range of personal, business and corporate accounts and it is a provider of mortgage and saving products.*
- *Work/Responsibilities:*
 - Learning the structure of a retail branch.
 - Experiencing different job role types such as Customer Service Advisor and Branch Manager.
 - Carrying out duties undertaken on a day-to-day basis.
 - Booking and arranging appointments.
 - Attracting customers on new products and services provided by Santander.
 - Providing an excellent customer experience ensuring that every customer is treated in a warm, friendly and respectful manner.
 - Reviewing Santander existing customers account and recommending any new services that can be provided for them.

I.T. Proficiency: Microsoft Office (Intermediate level in Excel – VBA, Word, Access), Linux, Fortran, LaTeX, Maple, Matlab.

Languages: Fluent: English, Arabic.

Awards: STEM for BRITAIN recognition certificate – Awarded for being shortlisted to present research at the House of Commons. (2018)
 Images of Research – Runner-up prize based on capturing an entire research project in a single image. (2018)
 The T E Stanley Memorial Prize – Awarded for students accepted for higher degree. (2015)
 Tanner Memorial Fund – Awarded for academic achievement in Mathematics. (2014)
 SEMS UG UK/EU Merit Scholarship – Awarded for best performing students in Engineering and Mathematics. (2013)
 SEMS UG UK/EU Merit Scholarship – Awarded for best performing students in Engineering and Mathematics. (2012)

References available upon request