



Applications are invited from suitably qualified candidates for the following position:

**Assistant Professor in Physics with Data Analytics and Processing**  
**School of Physical Sciences**  
**Faculty of Science & Health**  
**Fixed Term 34-Months Contract**

**Introduction**

Dublin City University [www.dcu.ie](http://www.dcu.ie) is a young, dynamic and ambitious University with a distinctive mission to transform lives and societies through education, research and innovation. We are a research-intensive, globally-engaged institution, distinguished by both the quality and impact of our graduates, and focus on the translation of knowledge into societal and economic benefit. Excellence in education and research activities has led to DCU's consistent presence in the rankings of the world's top young universities.

Over its relatively short history DCU has developed a strong reputation nationally and internationally for pioneering innovations in higher education. The University is embarking on a period of significant investment in learning innovation across all of its Faculties. This initiative will help us transform the learning experience of undergraduate students at DCU, reconceptualizing learning opportunities, creating authentic connections between the classroom and enterprise, and embedding digital literacies, disciplinary competencies and transversal skills required to truly future-proof our graduates for the rapidly changing workplace. DCU is joined in this project by a strong consortium of enterprise partners, representing key employment sectors in the Irish economy and with a strong presence in DCU's primary catchment area. This programme of innovation is funded under the Irish government's Human Capital Initiative (HCI) supported by the National Training Fund. It will deliver on the ambitions we have to reimagine undergraduate curricula and to embed innovative pedagogies, enhanced use of technology and deep industry engagement.

**School of Physical Sciences**

The School of Physical Sciences [www.dcu.ie/physics](http://www.dcu.ie/physics) at Dublin City University has a high standing within Ireland and internationally, for both its teaching and research activities. There are more than fifty researchers within the School's research groups including postgraduate students, postdoctoral researchers, research officers, research technicians and administrators. Physics research at DCU covers **astrophysics, plasma and laser-plasma physics, biomedical physics, microsystems, materials and solid state physics and physics education** as its main priority areas. The School hosts several research centres and notably the National Centre for Plasma Science and Technology (NCPST) [www.ncpst.ie](http://www.ncpst.ie). Research in astronomy takes place within the University approved Centre for Astrophysics & Relativity (CfAR) [www.cfar.ie](http://www.cfar.ie). The School has been very successful in winning substantial research funding and programme grants from Science Foundation Ireland (<http://www.sfi.ie>), the Higher Education Authority PRTL programme ([www.heai.ie/PRTL](http://www.heai.ie/PRTL)), Enterprise Ireland [www.enterpriseireland.com](http://www.enterpriseireland.com) and the EU Horizon2020, in addition to postgraduate

scholarships and postdoctoral fellowships from the Irish Research Council for Science, Engineering and Technology [www.research.ie](http://www.research.ie).

The School of Physical Sciences offers three undergraduate degree programmes: BSc in Applied Physics, BSc in Physics with Biomedical Sciences and BSc in Physics with Astronomy, all of which are entered via a Physics General Entry programme, and contributes to the BSc in Environmental Science and Technology and the BSc in Science Education. In keeping with its Strategic Plan, the School is now looking to expand the number of physics programmes available to students through a new innovative curriculum project (BSc in Physics with Data Analytics) in partnership with key industry collaborators and other Schools across the university.

### **Relationships**

The position will report to the Head of School and work closely with other colleagues, the Teaching Convenor/Associate Dean of Teaching and Learning and industry partners. Building positive relationships with professional support staff and technical and pedagogy specialists and engagement with key stakeholders within and outside DCU is an important part of this role.

### **The Role**

The successful individual will be expected to support the School in implementing an innovative curriculum project, specifically:

- Developing and delivering a new bachelor's programme/specialism in Physics with Data Analytics, ensuring an industry engaged, research-led approach, including integration of challenge-based learning, digital tools and hybrid delivery.
- The broader implementation of teaching approaches into other target programmes in the school, and
- Engaging with university-wide elements of the initiative including cross faculty cooperation, project evaluation and reporting.

The role includes teaching, supervision of laboratory sessions, student mentoring and supervision of taught projects and research.

### **Duties & Responsibilities**

See job description for full list of duties and responsibilities.

### **Applicant Requirements**

- Applicants must have the ability to teach a broad range of physics topics at honours undergraduate physics level and at postgraduate level in their area of specialisation and contribute to the future development of the School's teaching.
- Applicants must hold an honours degree in physics, applied physics or equivalent, and hold a PhD in physics or cognate area.
- Applicants must ideally have a minimum of three years' relevant postdoctoral research experience and a demonstrable track record of high quality and original research, as evidenced by regular publication in high impact physics journals, a significant citation count, presentations at top international conferences and the ability to attract research funding.
- Applicants must have demonstrable teaching experience in the delivery of undergraduate lecture and laboratory physics, ideally including experience in innovative pedagogies and/or assessments, and/or online or technology-assisted teaching that could include technological developments such

as artificial intelligence, machine learning, gamification, data visualization and analysis or similar digital technologies.

- Applications are specifically invited from those with strong research credentials and publication record
- Applicants must demonstrate excellent communication and social skills consistent with the highest quality of teaching and learning, as well as evidence of successful teamwork and a collegial approach.

### **Mandatory Training**

The post holder will be required to undertake the following mandatory compliance training: GDPR, Orientation, and Compliance.

**Salary Scale:** Assistant Professor (Above Bar) \*€54,163 - €86,182

*\*Appointment will be commensurate with qualifications and experience, and will be made on the appropriate point of the relevant salary scale in line with current Government pay policy.*

**Closing Date: Tuesday 2nd June 2021**

**For more information on DCU and benefits, please visit [Why work at DCU?](#)**

**Informal Enquiries to:** Associate Professor Jean-Paul Mosnier, Head of School of Physical Sciences, Dublin City University, Dublin 9. Tel: 353 1 700 5303; Email [jean-paul.mosnier@dcu.ie](mailto:jean-paul.mosnier@dcu.ie) *Do not send applications to this address. Instead, apply using the procedure set out below.*

**Application Procedure:** Application forms are available from the DCU Current Vacancies website at <https://www.dcu.ie/hr/vacancies/current.shtml> Applications must be submitted by e-mail to [hr.applications@dcu.ie](mailto:hr.applications@dcu.ie)

**Please clearly state the role that you are applying for in your application and email subject line:**  
**Job Ref # HCl.3.F.27a Assistant Professor Physics with Data Analytics and Processing.**

*Dublin City University is an equal opportunities employer. In line with the Employment Equality Acts 1998 – 2015, the University is committed to equality of treatment for all those who engage with its recruitment, selection and appointment processes. The University's Athena SWAN Bronze Award signifies the University's **commitment to promoting gender equality and addressing any gender pay gaps**. Information on a range of university policies aimed at creating a supportive and flexible work environment are available [in the DCU Policy Starter Packs](#)*