



Job title	Research Fellow (Title will be 'Research Associate' where an appointment is made before PhD is completed)	Job family and level	Research and Teaching Level 4 (Appointment will be Level 4 Career Training Grade where an appointment is made before PhD has been completed)
School/ Department	School of Physics and Astronomy	Location	University Park Campus

Purpose of role

The main responsibilities of this post are to carry out research in theoretical particle physics and cosmology, and to contribute towards the research aims of the project "Reliable gravitational wave predictions for tests of the electroweak phase transition". The project is led by Oliver Gould and aims to improve predictions for cosmological phase transitions that may be detected by gravitational wave observatories, particularly through the development of ideas and tools within quantum field theory.

The person appointed will have the opportunity to use their initiative and creativity to identify and pursue new avenues of research.

The person appointed will be an integral part of a diverse team from both the Particle Cosmology Group in the School of Physics and Astronomy and the Nottingham Centre of Gravity, and they are expected to actively contribute to the research activities of these groups.

	Main responsibilities (Primary accountabilities and responsibilities expected to fulfil the role)	% time per year
1	To plan and conduct research in theoretical particle physics and cosmology, towards the goals of the research project.	70%
2	To write up research work for publication and to contribute to its dissemination within both the scientific community and the general public.	10%
3	To develop their own research ideas and collaborate with academic colleagues on areas of shared interest.	10%
4	To assist where appropriate with supervising undergraduate and postgraduate students' projects.	5%
5	To contribute to the activities of the research group, for example by organising seminars or a journal club.	5%

Person specification

	Essential	Desirable
Skills	<ul style="list-style-type: none"> Ability to creatively apply relevant research approaches, models, techniques and methods. Excellent communication skills, including the ability to communicate complex ideas clearly. Ability to build relationships and collaborate with others, internally and externally. 	<ul style="list-style-type: none"> Experience of developing new research collaborations.
Knowledge and experience	<ul style="list-style-type: none"> Research experience in theoretical particle physics and/or cosmology. A track record of published research in peer reviewed journals. 	<ul style="list-style-type: none"> Research experience in at least one of the following: quantum field theory, cosmological phase transitions, effective field theory, nonequilibrium field theory. Experience of developing new approaches, models, techniques or methods in research area. Evidence of independent research.
Qualifications, certification and training (relevant to role)	<ul style="list-style-type: none"> PhD (or close to obtaining a PhD) in theoretical particle physics or cosmology or a closely related subject. 	





Expectations and behaviours

The University has developed a clear set of core expectations and behaviours that our people should be demonstrating in their work, and as ambassadors of the University's strategy, vision and values. The following are essential to the role:

- Valuing people** Is friendly, engaging and receptive, putting others at ease. Actively listens to others and goes out of way to ensure people feel valued, developed and supported.
- Taking ownership** Is clear on what needs to be done encouraging others to take ownership. Takes action when required, being mindful of important aspects such as Health & Safety, Equality, Diversity & Inclusion, and other considerations.
- Forward thinking** Drives the development, sharing and implementation of new ideas and improvements to support strategic objectives. Engages others in the improvement process.
- Professional pride** Is professional in approach and style, setting an example to others; strives to demonstrate excellence through development of self, others and effective working practices.
- Always inclusive** Builds effective working relationships, recognising and including the contribution of others; promotes inclusion and inclusive practices within own work area.

Key relationships with others

