

University of Surrey
FACULTY OF ENGINEERING AND PHYSICAL SCIENCES
Department of Physics
Research Fellow in Nuclear Many-Body Theory
(Ref: 094217 and 094317)

Applications are invited for two postdoctoral research positions at the Nuclear Theory Group of the University of Surrey. These two-year posts are part of a Consolidated Grant project funded by the Science and Technology Facilities Council to advance Nuclear Structure and Reactions. Successful candidates will work on developing new nuclear theory techniques to study (1) *infinite matter* in the context of neutron-star astrophysics (position 094217) or (2) *finite nuclei* (position 094317). The two research fellows will undertake original theoretical nuclear physics research in quantum many-body techniques, nuclear structure, and/or nuclear astrophysics, extending the Surrey group capabilities within ab initio nuclear theory.

Ab initio infinite nuclear matter calculations (position 094217)

Starting date: early 2018 start is possible.

Online application: <https://jobs.surrey.ac.uk/vacancy.aspx?ref=094217>

Contact: a.rios@surrey.ac.uk

Ab initio nuclear structure theory (position 094317)

Starting date: Summer 2018.

Online application: <https://jobs.surrey.ac.uk/vacancy.aspx?ref=094317>

Contact: c.barbieri@surrey.ac.uk

Candidates must hold (or be close to completion of) a PhD degree in physics, applied mathematics or computer science and have a commitment for research in low-energy nuclear physics. Knowledge of many-body and quantum field theories and/or experience with High Performance Computing are also desirable. Candidates should apply on-line to the links above, providing a *curriculum vitae* (including a publication list) and a *one-page statement of research interests*. Applicants should make sure 2 letters of recommendation are sent to the contact persons. Applicants who wish to be considered for both positions should either submit an application for each post, or contact Kate Sheen in the Faculty HR Team (k.sheen@surrey.ac.uk).

The Nuclear Physics Group at the University of Surrey has active research interests in a wide range of topics and a long-standing reputation in both theory and experiment. We provide a breadth and depth of expertise that enables the innovative exploitation of present radioactive- and stable-beam facilities, while developing theoretical capabilities and experimental equipment to enable the optimum use of future facilities. The group's theoretical research priorities, which interface ab-initio many-body and time-dependent mean-field (and beyond mean-field) approaches with nuclear reaction theory, are also very strongly linked with radioactive-beam developments worldwide

Applications received by **2 January 2018** will receive full consideration. Later applications will only be considered if the positions are not filled.

Prospective applicants are encouraged to contact Dr C. Barbieri (c.barbieri@surrey.ac.uk) and/or Dr Arnau Rios Huguet (a.rios@surrey.ac.uk) for further information.

We acknowledge, understand and embrace cultural diversity.

