

## **Postdoctoral Research Fellow**

### **Q-Tensor models of defect dynamics in pure and doped liquid crystals**

**University of Southampton – Mathematics**

**Salary: £27428 per annum**

Applications are invited for a three-year postdoctoral post in applied mathematics/theoretical physics, to undertake theoretical research in the area of liquid crystals. Specifically, the project aims to develop new, computationally efficient models for the alignment of liquid crystals based on sound mathematical approximations of the standard theories. The new models will be applied not only to pure liquid crystals, but also to liquid crystals whose properties have been enhanced by doping them with gold nanoparticles. The post is a key part of a new research project funded by the Engineering and Physical Sciences Research Council (EPSRC) via research grant EP/J006920/1 that involves theoreticians in the School of Mathematics (where the post-holder will be based) and experimentalists in the School of Physics and Astronomy.

In order to be considered for this post, the applicant must have a PhD or equivalent in Mathematics, Physics or a related discipline, and have a track record in mathematical modelling, asymptotic methods and numerical methods. Previous experience with liquid crystals and/or optics would be an advantage. Good communication and writing skills and, in particular, the ability to work in a multidisciplinary team are essential.

More information on the project is available at

<http://www.personal.soton.ac.uk/dales/Q-Gold/>

The closing date for applications is 3 May 2012. To apply on-line please visit [www-jobs.soton.ac.uk](http://www-jobs.soton.ac.uk), or call +44-(0)23-8059-2750. Please quote reference number 109912PJ on all correspondence

A complete application should include (i) a Curriculum Vitae, including a list of publications; (ii) a brief (<1 page) statement of research interests; and (iii) the names and addresses of three referees.

For informal inquiries contact Giampaolo D'Alessandro, [dales@soton.ac.uk](mailto:dales@soton.ac.uk)