



LUND UNIVERSITY

Division of Solid Mechanics
www.solid.lth.se

Prof. Andreas Menzel
Prof. Matti Ristinmaa

Lund University was founded in 1666. Today it is an international centre for research and education that has approximately 38 000 students. Lund University is respected as one of the best universities in Sweden and located in the city of Lund, which is in southern Sweden close to Denmark and northern Germany (www.lu.se, www.lth.se, www.lund.se).

Open PhD Position · PA 2009/3025

Multiscale Modelling of Electroactive Polymers

Swedish Research Council · 2008-3914
<http://vrproj.vr.se/detail.asp?arendeid=61797>

One of the most challenging applications of the mechanics of solid materials today certainly is the field of smart materials. This well-recognised and fast-growing research area provides a vast number of new and fascinating applications such as stringent design and control specifications in aerospace, aeronautic, industrial, mechanical, automotive, biomedical, and nano-systems as well as the development of new materials, to name but a few. The ultimate aim of this project is to provide physics-based constitutive models translated into numerical formulations that reproduce important properties of a particular class of smart materials at different scales of observation, namely electroactive polymers (EAP). The algorithmic approach followed is based on finite deformation kinematics and non-linear finite element concepts to enable the simulation of general boundary value problems relevant to engineering applications.

Highly motivated applicants should have a university degree (master/diploma) in engineering or mathematics, physics, materials science. A good knowledge in continuum mechanics, the finite element method, programming, and communication skills in English are required.

The terms of employment are in accordance with the general rules of Lund University and the position opened (PA 2009/3025) is a full (100%) position. The related project, financed by the Swedish Research Council (2008-3914), runs for a period of three years but the employment covers the entire PhD period.

Interested candidates are invited to submit their applications (together with the usual documents as a letter of motivation, CV, degree certificates, references) to

Registrar, Lunds Universitet, Box 117, 221 00 Lund, Sweden

The **reference number (PA 2009/3025)** of the position must be mentioned in the application letter and the deadline for application is **September 25, 2009**. The opening of the position is officially announced at www.lth.se/omlth/ledigatjanster

For further information, please contact

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