



Joint LLC Seminar

Thursday September 29, 15:15
The Rydberg Lecture Hall, Dep. of Physics

Per-Erik Bengtsson

Div. of Combustion Physics, Lund University

Laser diagnostics of soot in combustion and atmospheric research

Soot particles are formed as a result of incomplete combustion, mainly from biomass burning, diesel engines, and fires. Despite decades of work on soot research, still several questions remain unsolved for the soot formation processes. Soot particles have several negative effects related to health and climate, for instance the impact of soot particles on the global climate is currently highly uncertain. This uncertainty is related to limited knowledge about optical and structural properties of soot and how they change during transformation in the atmosphere. Hence more research is needed to better understand soot formation, growth and oxidation processes. This seminar will shed light on these issues as well as describing how laser diagnostic techniques can be used to extract information on soot characteristic properties. Laser techniques will be presented on how to measure particle concentrations and sizes using techniques such as extinction, elastic light scattering and laser-induced incandescence. Special focus will be given to how to retrieve information about soot optical properties and studies of how soot particles mature during the formation process.

**The seminar is suited for a broad audience
and open for everybody**

**The Rydberg Lecture Hall is located at the Department of Physics,
Professorsgatan 1**

**Coffee and refreshments will be served
before the seminar, from 15:00**

