Data and models encountered in the natural sciences and engineering are more or less characterized by uncertainty. The phenomenon of uncertainty cannot be described by means of probability theory alone.

In recent years, work on the formulation of new mathematical models for describing uncertainty has intensified. This work is based on chaos theory, convex modeling, fuzzy set theory, fuzzy randomness and other ideas. The aim of these uncertainty models is to handle data exhibiting, in particular, non-stochastic properties and informal uncertainty. **These non-classical models are the topic of the special session.**

The models themselves and their applications in civil engineering and computational mechanics are the topic of a controversial discussion in the scientific community. The scheduled session is held to contribute to the further scientific development of these models and approaches.

Prospective authors are invited to submit either a Short Paper by September 30, 2004 or a one-page Abstract by March 15, 2005 to the session organizer. Each Short Paper and each Abstract must correspond to a separate presentation (25 minutes each) at the Conference. For details on the preparation of the Short Paper and/or an Abstract, see the Conference web site.