

**ICAMS Special Seminar**

Tuesday, 4th June, 2:15 p.m.
Room IC 02-718

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Modelling of polarization kinetics of ferroelectric ceramics

In spite that most of the technologies utilize ferroelectrics in a form of ceramics, modeling of polarization kinetics of ferroelectric ceramics is still a challenging task as multiscale mechanisms are involved in the process. Stochastic-based models are the most common approach in this problem, however, they cannot account for non-180 polarization switchings.

In this work, the model which allows for a simulation of polarization kinetics of ferroelectric ceramics is presented along with simulation results analysis. Additionally, the first stochastic-based model which can take into account non-180 switchings is presented. The latter model was applied to recent experimental measurements to withdraw valuable parameters such as activation energy for different processes.