

Symposium Rare Events: optimal solutions and challenges – from charge transfer reactions to supervolcanoes (SYRE)

jointly organized by
the Working Group on Energy (AKE),
the Extraterrestrial Physics Division (EP),
the Molecular Physics Division (MO),
the Theoretical and Mathematical Physics Division (MP), and
the Quantum Optics and Photonics Division (Q)

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Rare events may be believed at first sight to be ignorable in the model design and description of systems. However, in some cases they may play an important role in the overall evolution of a system and therefore deserve careful assessment. Depending on the system considered, very different theoretical approaches will be needed to derive quantitative conclusions about their possible impact. This Symposium informs about the occurrence and relevance of rare events in a rather heterogeneous range of systems including chemical reactions and complex natural systems such as the sun or the volcanic activity of the earth with concomitant consequences on climate and life on earth. Setting the scene in the first talk, it is shown that rare events are significant not only in natural systems but, as recent events demonstrate, also for developments in society and economics.

Overview of Invited Talks and Sessions

(Lecture room: Audimax)

Invited Talks

SYRE 1.1	Wed	16:30–17:00	Audimax	Rare and large events: examples from the natural sciences and economics — ●THOMAS GUHR
SYRE 1.2	Wed	17:00–17:30	Audimax	The roles of energy-level and electronic-coupling fluctuations in the control of biomolecular and small-molecule charge transfer reactions — ●SPIROS SKOURTIS
SYRE 1.3	Wed	17:30–18:00	Audimax	What do we know about extreme solar events? — ●ILYA USOSKIN
SYRE 1.4	Wed	18:00–18:30	Audimax	The climate impact of very large volcanic eruptions: An Earth system model approach — ●CLAUDIA TIMMRECK

Sessions

SYRE 1.1–1.4	Wed	16:30–18:30	Audimax	Symposium Rare Events: optimal solutions and challenges – from charge transfer reactions to supervolcanoes
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