

Event organized within the framework of the
Engineering Physics Colloquia



Ca' Foscari
University
of Venice
Department of
Molecular Sciences
and Nanosystems

Prof. **Suzanne Fielding**
Durham University (United Kingdom)

Memory and Yielding of Soft Materials

25th March 2026, 11.00
Epsilon 2, Epsilon Building

The seminar will also be accessible remotely via the following link: <https://unive.zoom.us/j/85736433942>
Password: seminar1

Organized by
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Memory and yielding of soft materials. When subject to an imposed load or deformation, many soft materials undergo dynamical yielding. Often, this is strongly delayed after the load or deformation was applied. It also shows signatures of memory of how the sample was prepared. During yielding, strain can often localise in the form of shear bands or fractures. These can ultimately heal away to leave a state of homogeneous flow, or may cause

the material to fail catastrophically. This seminar will review research developing criteria for the onset of shear banding in the yielding of soft materials. Strategies for designing materials with increased toughness will also be discussed. Finally, the role of strain localisation in causing non-monotonic stress relaxation will be considered.