

# Symposium Topological constraints in biological and synthetic soft matter (SYSM)

jointly organised by  
the Chemical and Polymer Physics Division (CPP),  
the Biological Physics Division (BP), and  
the Dynamics and Statistical Physics Division (DY)

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This focus session illustrates the importance of topology-related phenomena and processes in various areas of soft matter physics. The examples cover topological constraints in synthetic and biological polymer melts and gels, the role of knots in proteins, and topological defects in liquid-crystalline materials.

## Overview of Invited Talks and Sessions

(Lecture hall Audimax 1)

### Invited Talks

SYSM 1.1	Mon	10:00–10:30	Audimax 1	<b>Interphase Chromatin Undergoes a Local Sol-Gel Transition Upon Cell Differentiation</b> — ●ALEXANDRA ZIDOVSKA
SYSM 1.2	Mon	10:30–11:00	Audimax 1	<b>Topological Tuning of DNA Mobility in Entangled Solutions of Supercoiled Plasmids</b> — ●JAN SMREK, JONATHAN GARAMELLA, RAE ROBERTSON-ANDERSON, DAVIDE MICHIELETTO
SYSM 1.3	Mon	11:15–11:45	Audimax 1	<b>Dynamics of macromolecular networks under topological and environmental constraints: some outstanding challenges</b> — ●DIMITRIS VLASSOPOULOS
SYSM 1.4	Mon	11:45–12:15	Audimax 1	<b>Supercoiling in a Protein Increases its Stability</b> — ●JOANNA SULKOWSKA, SZYMON NIEWIECZERZAŁ
SYSM 1.5	Mon	12:15–12:45	Audimax 1	<b>Topology for soft matter photonics</b> — ●IGOR MUSEVIC

### Sessions

SYSM 1.1–1.5	Mon	10:00–12:45	Audimax 1	<b>Topological constraints in biological and synthetic soft matter</b>
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