

## Symposium Entanglement (SYEN)

jointly organised by  
 the Theoretical and Mathematical Physics Division (MP),  
 the Gravitation and Relativity Division (GR), and  
 the Working Group on Philosophy of Physics (AGPhil)

Karl-Henning Rehren  
 Institut für Theoretische Physik, Uni Göttingen  
 Friedrich-Hund-Platz 1  
 37077 Göttingen  
 krehren@gwdg.de

“Entanglement” has gone a long way from a puzzle about some peculiar quantum mechanical states, triggering illustrious disputes about the interpretation of QM, to a dominant effect in finite-temperature solid-state physics, a resource in quantum computation, a driving agent in black hole thermodynamics, and a tool in quantum measurement. The symposium aims to present some of these amazing facets with interest to many communities.

### Overview of Invited Talks

(Lecture hall J-HS D, Adenauerallee 24-42)

#### Invited Talks

SYEN 1.1	Thu	11:00–11:40	J-HS D	<b>Entanglement and Complexity in Quantum Many-Body Systems</b> — •TOMAZ PROSEN
SYEN 1.2	Thu	11:40–12:20	J-HS D	<b>Entanglement and Explanation</b> — •CHRIS TIMPSON
SYEN 1.3	Thu	12:20–13:00	J-HS D	<b>Production and observation of entanglement in quantum optics</b> — •ROMAN SCHNABEL