



# Münchner Physik- Kolloquium

sommer  
2017

## Protein phase transitions in and out of cells

**Prof. Dr. Ned S. Wingreen**, *Department of Molecular Biology, Princeton University, USA*

Monday, 3 July 2017, 17:15 h

Hörsaal 2, Physik-Department der TUM, Garching

Biologists have recently come to appreciate that eukaryotic cells are home to a multiplicity of non-membrane bound compartments, many of which form and dissolve as needed for the cell to function. These dynamical “liquid droplets” enable many central cellular functions – from ribosome assembly, to RNA regulation and storage, to signaling and metabolism. While it is clear that these compartments represent a type of separated phase, what controls their formation, how specific biological components are included or excluded, and how these structures influence physiological and biochemical processes remain largely mysterious. I will discuss recent experiments on phase separated droplets both in vitro and in vivo, and will present theoretical results that highlight a novel “magic number” effect relevant to the formation and control of two-component phase separated liquid droplets.

## Student event: Meet the speaker

We invite you to a **student-only** discussion-round with Prof. Dr. Ned S. Wingreen before his Munich Physics Colloquium talk.

*Be curious and feel free to ask any question.*

Monday, 3 July 2017, 16:00 h

Seminar room PH 3076 (upper floor), Physik-Department der TUM, Garching

