

Friday, Jan 16, 2026 

14:00 h 

RUN Auditorium 



Prof. Dr. Rudolf Bratschitsch

Ultrafast solid-state quantum optics and nanophotonics

Physical Institute

University of Münster, Münster, Germany

Magnonic waveguide networks

Spin waves (magnons) have emerged as a promising platform for next-generation physical computing. However, current experimental realizations of magnonic waveguides suffer from limited spin-wave propagation lengths and inefficient dispersion tuning capabilities. In my talk, I will present low-loss magnonic waveguides in a thin magnetic insulator film, fabricated with a new maskless silicon ion implantation technique. We demonstrate a large-scale magnonic network, paving the way for wafer-scale magnonic integrated circuits.

Coffee & Discussion