

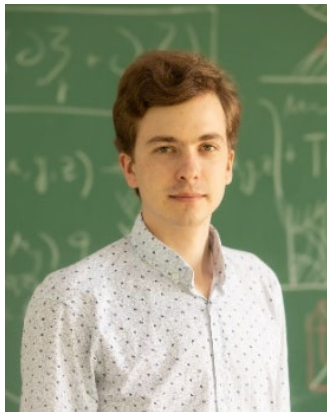
Monday, Jan 12, 2026



14:00 h



RUN Auditorium



Dr. Kirill Voronin

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San Sebastian, Spain

Theory of near-field microscopy and quantum optics of anisotropic materials

The talk presents our recent theoretical advances in near-field microscopy and quantum optics of anisotropic media. First, I discuss an analytic theory of near-field microscopy, its extension to layered structures, and open theoretical challenges relevant for experiments. I then address quantum electrodynamics of strongly anisotropic materials, including quantization of hyperbolic phonon polaritons and emitter–polariton coupling, highlighting open questions and potential directions for future studies.