## Condensed Matter Physics in the Alps: Geometric Frustration, Topology, Flat Bands, and Correlation in Kagome and Van der Waals Systems



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## Magnetism on the Shastry-Sutherland lattice

Monday 5 January 2026 10:30 (35 minutes)

The Shastry-Sutherland lattice, also known as the orthogonal dimer lattice, is a paradigmatic geometry of frustrated magnetism both for classical and quantum spins. In this talk, I will report on extensive tensor network simulations of that model that have allowed us to understand the remarkably rich phase diagram of the spin-1/2 Shastry-Sutherland SrCu2(BO3)2 under pressure and magnetic field, and the intriguing magnetization plateaus of Er2Be2GeO7, a recent rare-earth based realization of the Ising model on the Shastry-Sutherland lattice.

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