Z_2 projective symmetry group study of strongly spin-orbit coupled pyrochlore materials

Chunxiao Liu, Gábor Halász, Leon Balents

University of California, Santa Barbara

- Projective symmetry group classification: **16 spin liquids**
- Mean field theories
- Spin liquid – magnetic order transition: **low energy theories of z=1 and z=2 types**
- Magnetic orders: **intertwined and hidden orders**
- Experimental signatures: **structure factors and heat capacity exponents**