Spin liquids and magnetic ordering in pyrochlores  LUDOVIC JAUBERT, HAN YAN, OWEN BENTON, NIC SHANNON, OIST — By their diversity, rare earth pyrochlores have proven to be a very fertile testing ground for exotic phenomena in magnetism, ranging from monopoles in spin ice (Dy₂Ti₂O₇), to textbook order-by-disorder transitions (Er₂Ti₂O₇), Higgs mechanism in quantum spin ice (Yb₂Ti₂O₇), potential spin liquid phases (Er₂Sn₂O₇) mediated by lattice fluctuations (Tb₂Ti₂O₇), and many more. In this talk, I will give a brief overview of this pyrochlore diversity, illustrated by direct comparison with experiments, both from the point of view of spin liquid stabilization and magnetic ordering processes.