What is going on in Yb$_2$Ti$_2$O$_7$? LUDOVIC JAUBERT, OIST, OWEN BENTON, OIST, Japan, MICHEL GINGRAS, University of Waterloo, Canada, JAAN OITMAA, UNSW, Australia, JEFF RAU, University of Waterloo, Canada, NIC SHANNON, OIST, Japan, RAJIV SINGH, UC Davis, USA — Yb$_2$Ti$_2$O$_7$ has become an excellent example of the complexity of frustrated magnets, showing properties of a spin liquid, dimensional reduction, ferromagnetism and multiple phase transitions. In this talk, we shall bring together many of these aspects into one general theoretical framework, showing how competing orderings are able to explain several experimental features observed in bulk measurements (Lhotel et al. PRB 2014) and neutron scattering (Chang et al. Nature Comm. 2012).