

Fractionalisation and RVB: Ladders and pyrochlores

Prof. Alan Tennant
Institute Complex Magnetic Materials,
Helmholtz-Center Berlin

Fractionalisation is an important concept in condensed matter.

Recently we have been exploring the physics of fractionalisation in ladder compounds and pyrochlores.

Important results to emerge from these measurements include signatures of resonating valence bond states, hierarchies of bound states in the vicinity of quantum critical points, and the possibility of deconfinement in 3D due to the robustness of topological mechanisms on pyrochlore lattices.