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**Coulomb Phases in the spin ices  $\text{Ho}_2\text{Ti}_2\text{O}_7$  and  $\text{Dy}_2\text{Ti}_2\text{O}_7$**

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Recent experiments on the spin ices  $\text{Ho}_2\text{Ti}_2\text{O}_7$  and  $\text{Dy}_2\text{Ti}_2\text{O}_7$  using polarized neutron scattering have revealed the pinch point scattering characteristic of dipolar, or ice rule, spin correlations. Such scattering has not previously been observed in the zero field spin ice state, but is strongly anticipated in theories of spin ice, where it is characteristic of the Coulomb phase which supports emergent magnetic monopole excitations. The scattering compares well with simple ice rule models, but there are extra contributions implying a modification of the pure ice rule constraint. I will discuss this comparison and its implication for the projective equivalence of near neighbour and dipolar spin ice Hamiltonians. Finally the effects of ice rule defects are clearly visible in the data, I will illustrate how their behaviour supports the picture of magnetic monopoles in spin ice.