Abstract Submitted
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Low temperature specific heat of geometrically frustrated $Gd_2Sn_2O_7$[1] KATE ROSS, JEFFREY QUILLIAM, CHAS MUGFORD, University of Waterloo, LINTON CORRUCCINI, University of California, Davis, JAN KYCIA, University of Waterloo — Previous measurements of the specific heat of $Gd_2Sn_2O_7$ showed a T^2 power law below a strongly first-order phase transition, though there was some indication of a deviation from this power law below 500 mK^2. Theory has predicted that anisotropy due to the dipolar interaction leads to a gapped spin wave spectrum resulting in an exponential specific heat as T approaches 0.[3] We will present specific heat measurements to below 100 mK. Preliminary results show a deviation from the T^2 law which supports the above theoretical model.

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[2]P. Bonville *et al.* J. Phys.: Cond. Mat. **15**, 7777 (2003).
[3]A. G. Del Maestro and M. J. P. Gingras, J. Phys.: Cond. Mat. **16**, 3339 (2004).

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