Abstract Submitted
for the MAR14 Meeting of
The American Physical Society

**The spin dynamics in perfect and distorted kagome lattices** DIRK WULFERDING, CALDES, IBS POSTECH, Pohang, Korea, PETER LEMMENS, IPKM TU Braunschweig, Germany, YOUNG S. LEE, MIT Massachusetts, USA, TIANHENG HAN, University of Chicago, USA, SHAOYAN CHU, MIT Massachusetts, USA, ZENJI HIROI, ISSP Tokyo, Japan, HIROYUKI YOSHIDA, NIMS Tsukuba, Japan, YOSHIHIKO OKAMOTO, ISSP Tokyo, Japan — When quantum spin systems are restricted in dimensionality and coordination they realize spin liquid states with enhanced quantum fluctuations and exotic correlation functions. We compare the experimentally determined excitation spectra of different spin liquid candidates on a kagome lattice. These include the s=1/2 Heisenberg antiferromagnets Herbertsmithite, Vesignieite and Volborthite. Using inelastic light scattering, we are sensitive to probe fractional spinon excitations. The effect of the crystal's lattice structure and defects on the spin dynamics is investigated. The data is also compared with theoretical modelling.

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Date submitted: 15 Nov 2013 Electronic form version 1.4