

Abstract Submitted  
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**Density of states, specific heat and nuclear spin-lattice relaxation rate in  $\text{PrOs}_4\text{Sb}_{12}$**  TAYSEER ABU ALRUB, STEPHANIE CURNOE, Department of Physics and Physical Oceanography, Memorial University of Newfoundland — We present a theoretical study of the density of states, specific heat and nuclear spin-relaxation rate in the unconventional superconductor  $\text{PrOs}_4\text{Sb}_{12}$ . In this material, superconductivity is best described by a three component order parameter in the triplet channel. Instead of nodes, deep dips appear in the gap function producing power law temperature dependencies at higher temperatures and exponential suppression at low temperatures of the specific heat and the nuclear spin lattice relaxation rate. Various experimental observations will be discussed in this context.

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