

Abstract Submitted  
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**Specific Heat of Two-Gap Extreme Type-II Superconductors in High Magnetic Fields**<sup>1</sup> TAMIRO VILLAZON, JULIAN IRWIN, SASHA DUKAN, Department of Physics and Astronomy, Goucher College, MD21204 — We present a numerical study of the quasiparticle contribution to the low-temperature specific heat of an extreme two-gap type-II superconductor at high magnetic fields. Within a T-matrix approximation for the self-energies in the mixed state of a homogeneous superconductor, the electronic specific heat is a linear function of temperature with a linear- $T$  coefficient  $\gamma(H)$  being a nonlinear function of magnetic field  $H$ . We compare our theoretical curve with available experimental data for the two-gap superconductors NbSe<sub>2</sub> and LuNi<sub>2</sub>B<sub>2</sub>C.

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