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Superconductivity in $ThCoC_2$[1] TED GRANT, University of California Irvine, ANTONIO J.S. MACHADO, EEL-USP Brazil, ZACHARY FISK, University of California Irvine — We report bulk superconductivity in the metallic carbide compound $ThCoC_2$. This compound crystallizes in the orthorhombic $CeNiC_2$ prototype structure, a non-centrosymmetric system. Despite the presence of Cobalt and the lack of inversion symmetry, we find bulk superconductivity with a critical temperature of T_c-2.6K. Details of the superconducting state with specific heat, magnetization, and resistivity measurements will be presented. This study was made possible by the generous support of AFOSR MURI "Search for New Superconductors for Energy and Power Applications."

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[ ] Prefer Poster Session

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