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Anisotropic quantum criticality in heavy-fermion metal CeCoIn5 RAMZY DAOU, MAKARIY TANATAR¹, Dept. Physique, Universite de Sherbrooke, Quebec, Canada, CEDOMIR PETROVIC, Brookhaven National Laboratory, JOHNPIERRE PAGLIONE, Dept. Physics, University of Maryland, LOUIS TAILLEFER, Dept. Physique, Universite de Sherbrooke, Quebec, Canada and Canadian Institute for Advanced Research — We previously reported a violation of the Wiedemann-Franz law in the heavy-fermion metal CeCoIn5 when tuned to its quantum critical point, depending on the direction of electron motion relative to the crystal lattice, which points to an anisotropic destruction of the Fermi surface [1]. Here we present new measurements of electric, thermal and thermo-electric transport coefficients which reveal different anisotropic responses. [1] M.A. Tanatar et al., Science 316, 1320 (2007).

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