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Change in anisotropic scattering by quantum fluctuations in $CeCoIn_5$ under pressure HANOH LEE, MPA-CMMS, Los Alamos National Laboratory, EUNSUNG PARK, Department of Physics, Sungkyunkwan University, TUSON PARK, MPA-CMMS, Los Alamos National Laboratory/ Department of Physics, Sungkyunkwan University, E.D. BAUER, J.D. THOMPSON, MPA-CMMS, Los Alamos National Laboratory — A recent study of $CeRhIn_5$ under pressure showed that electronic scattering is most isotropic near its local quantum critical point (QCP) and becomes more anisotropic as pressure tunes it away from the QCP.[1] We have measured the a- and c-axis resistivity of $CeCoIn_5$ at pressures up to 1.7 GPa to determine evolution of the anisotropy in this quantum critical metal. The effective mass and scattering rate, deduced from the slope of the upper critical field and resistivity, decrease with increasing pressure, indicating that the system moves away from its QCP as pressure increases. Temperature dependence of the anisotropy is almost constant down to 14 K ($=T_0$) at ambient pressure, but applied pressure shifts the deviation temperature T_0 to a higher temperature, which is consistent with the presence of a QCP near ambient pressure. Analysis of these data and a comparison with $CeRhIn_5$ will be presented to discuss nature of the quantum critical fluctuations in this compound.

[1]T. Park, et al., *Nature* **456**, 366 (2008).

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