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Shot Noise in the SU(4) Kondo regime VITUSHINSKIY PAVEL, Universite de Sherbrooke, Sherbrooke (QC), Canada, LE HUR KARYN, Yale University, New Haven (CT), USA, CLERK AASHISH, McGill University, Montreal (QC), Canada — It has recently been shown that shot noise is a direct probe of interparticle interactions which characterize the Fermi liquid fixed point of the standard Kondo model. We now examine the transport properties of the systems which are known to exhibit an unusual SU(4) Kondo correlated liquid behaviour at low temperatures. It was shown using T-matrix approach that conductance in this regime has unexpected linear in eV corrections, as dictated by the low-energy SU(4) Fermi-liquid fixed point. We confirm this result by the microscopic calculation of backscattering current using Keldysh formalism. The SU(4) symmetry in turn affects the current shot noise and thus leads to renormalized value of the effective charge.

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