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Charge Kondo effect in a triple quantum dot GWANGSU YOO, JINHONG PARK, S.S.-B. LEE, H.-S. SIM, Korea Adv Inst of Sci & Tech — We predict that the charge Kondo effect appears in a triangular triple quantum dot. The system has two-fold degenerate ground-state charge configurations, interdot Coulomb interactions, lead-dot electron tunnelings, but no interdot electron tunneling. We show, using bosonization and refermionization, that the system is described by the *anisotropic* Kondo model. The anisotropy can be tuned by changing lead-dot electron tunneling strength, which allows one to experimentally explore the transition between the ferromagnetic non-Fermi liquid and antiferromagnetic Kondo phases in the Kondo phase diagram. Using numerical renormalization group method, we demonstrate that the transition is manifested in electron conductances through the dot.

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