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Josephson current through a molecular transistor in a dissipative environment TOMAS NOVOTNY, ALESSANDRA ROSSINI, KARSTEN FLENSBERG, Nano-Science Center, Univeristy of Copenhagen, Denmark, THEORY GROUP TEAM — We study the Josephson coupling between two superconductors through a single correlated molecular level, including Coulomb interaction on the level and coupling to a bosonic environment. All calculations are done to the lowest, i.e., the fourth, order in the tunneling coupling and we find a suppression of the supercurrent due to the combined effect of the Coulomb interaction and the coupling to environmental degrees of freedom. Both analytic and numerical results are presented.

Karsten Flensberg
Niels Bohr Institute, Univeristy of Copenhagen, Denmark

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