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Electrically tunable optical emitter graphene coupling LUCAS ORONA, Massachusetts Institute of Technology, KLAAS-JAN TIELROOIJ, FRANK KOPPENS, Institute of Photonic Sciences, PABLO JARILLO-HERRERO, Massachusetts Institute of Technology — Graphene exhibits both novel electronic and optical properties. Optical emitters near graphene experience non-radiative coupling that generates electron hole pairs in the graphene. We are able to vary the strength of this coupling by electrically gating the graphene. Strong gating raises the Fermi energy so that no more electrons can be excited by the emitters, essentially halting the non-radiative decay. My talk will be about experimental measures of this process, which we call Pauli blocking.

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