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**Detectability of dissipative motion in quantum vacuum via superradiance** WOO-JOONG KIM, MICHAEL BROWN-HAYES, JAMES HAYDEN BROWNELL, ROBERTO ONOFRIO, Dartmouth College — We report on a feasibility study for the detection of vacuum-induced dissipative motion, also known as the dynamical Casimir effect. Casimir photons are generated using high frequency mechanical resonators currently available through FBAR technology. The corresponding weak radio-frequency signal will stimulate population-inverted alkali atoms to generate an intense superradiant pulse detectable with conventional electronics.

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