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Measurement of Direct Photon Production in p+p Collisions at $\sqrt{s} = 200$ GeV STEFAN BATHE, University of California at Riverside, PHENIX COLLABORATION — The measurement of high-momentum direct photons in nucleus-nucleus collisions is an excellent test of QCD: Photons are a direct participant of the fundamental interaction, they are not affected by constituent scattering, they do not undergo fragmentation, and they can be measured to high precision. In A+A collisions, direct photon production is an important observable in the search for the Quark-Gluon Plasma. To obtain the contribution of pQCD photons to the total photon signal, it is crucial to measure the signal in p+p collisions. With RHIC's ability to collide polarized proton beams, direct photons in p+p will also be the key probe of the gluon spin structure function of the proton. With its high-granularity electromagnetic calorimeter and triggering capability, the PHENIX experiment is superbly suited for measuring direct photons. The status of the measurement of direct photon production in p+p collisions will be presented.

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