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Searching for Strangeness Enhancement in Ultra-Peripheral Pb+Pb Collisions with ATLAS MORGAN KNUESEL, University of Colorado, Boulder, ATLAS COLLABORATION — Quark-gluon plasma is an exotic state of matter which can be produced in high-energy heavy ion collisions. The saturation of strange quarks in these collisions is considered one of the signatures of QGP formation and thus is a useful tool for studying various collision systems. In an effort to push the bounds of where evidence of QGP is found, this study investigates the feasibility of measuring strange hadrons in photonuclear ultra-peripheral collisions using 5.02 TeV Pb+Pb collision data collected by the ATLAS experiment at CERN's Large Hadron Collider. Motivation for this study arrives from recent findings of collective phenomena similar to that of a QGP in these collisions, as well as evidence of strangeness enhancement in smaller systems such as proton-proton collisions.

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