MAS20-2020-000073 C

> Abstract for an Invited Paper for the MAS20 Meeting of the American Physical Society

Recent Results from the HAWC Gamma Ray Observatory JORDAN GOODMAN, University of Maryland, College Park, HAWC COLLABORATION

The High Altitude Water Cherenkov (HAWC) Gamma-ray Observatory in the high mountains of Mexico is giving us a new view of the TeV sky. Unlike Imaging Atmospheric Cherenkov Telescopes (IACTs), HAWC operates 24hrs/day with over a 95% on-time and observes the entire overhead sky (~8sr over the course of the day). This talk will present an overview of recent HAWC results showing our updated sky catalog, our view of the highest energy gamma-ray sky (including sources above 50 and 100 TeV), first observations of the jets of a micro-quasar and a summary of recent observations of galactic Pevatrons. In addition, we will present recent limits on primordial black holes, Lorentz invariance violation and multi-messenger observations.