PLANETS AROUND ULTRACOOL DWARFS AND STELLAR REMNANTS WITH THE ARECIBO TELESCOPE

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I will discuss the importance of Arecibo's involvement in searches for flaring radio emission from low-mass stars, brown dwarfs and giant exoplanets, and in projects aimed at discovery of planets around stars and stellar remnants. I will illustrate capabilities of the Arecibo telescope in these areas with a presentation of recent detections of flares from two T-type brown dwarfs, one-year monitoring of an active, M9 star, TVLM 513, the latest results from timing of the planets pulsar, PSR B1257+12, and from a search for the unipolar inductor radio emission from white dwarf planets.

BIO

Professor Alexander Wolszczan's research interests focus on planets around evolved stars and stellar remnants. He has also worked on topics in relativistic gravitation, pulsars, brown dwarfs, and the physics of the interstellar medium. He received a doctorate in physics in 1975 from the Nicolaus Copernicus University in Torun, Poland. He held positions at the Max–Planck–Institut fuer Radioastronomie in Bonn, Germany, the National Astronomy and Ionosphere Center at Arecibo, Puerto Rico, and Princeton University. At present, he is an Evan Pugh University Professor of Astronomy and Astrophysics at the Pennsylvania State University. Until 2019, he was the director of Penn State's Center for Exoplanets and Habitable Worlds. Professor Wolszczan is best known for his discovery, in 1992, and a subsequent confirmation, of the first planets orbiting a star other than the Sun. He is also a discoverer and co-discoverer of many pulsars and giant planets around evolved stars.