"The Juno Mission's Exploration of Jupiter"

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The Juno spacecraft was launched in August of 2011 and was placed into orbit around Jupiter in July of 2016. It is the first solar-powered spacecraft in the outer solar system and the first to be placed into polar orbits. Its primary goals are (1) to determine the O/H ratio from the abundance of water in the atmosphere to discriminate between alternatives for its origin, (2) to understand Jupiter's interior structure and dynamical properties by mapping its gravitational and magnetic fields, (3) to map variations in atmospheric composition, cloud opacity and dynamics to depths of over 100 atmospheres of pressure at all latitudes, and (4) to characterize the 3-dimensional structure of Jupiter's polar magnetosphere and its auroras. Juno is also the first mission to include a public-outreach camera on its instrument payload, which has been providing stunning images of Jupiter at nearly unprecedented spatial resolutions. This talk will survey those results and identify ways in which the general public can become involved in this mission directly.