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Parker Solar Probe: A NASA Mission to Touch the Sun

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The newly renamed, Parker Solar Probe (PSP) mission will be the first mission to fly into the low solar corona, revealing how the corona is heated and the solar wind and energetic particles are accelerated, solving fundamental mysteries that have been top priority science goals since such a mission was first proposed in 1958. The scale and concept of such a mission has been revised at intervals since that time, yet the core has always been a close encounter with the Sun. The primary science goal of the Parker Solar Probe mission is to determine the structure and dynamics of the Sun's coronal magnetic field, understand how the solar corona and wind are heated and accelerated, and determine what mechanisms accelerate and transport energetic particles. PSP uses an innovative mission design, significant technology development and a risk-reducing engineering development to meet the science objectives. In this presentation, we provide an overview of the mission science and design, and an update on the progress of the Parker Solar Probe mission as we prepare for the July 2018 launch.