



The Student Dust Counter: Status Report at 25 AU

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The Student Dust Counter (SDC) is an impact dust detector on board the New Horizons Mission to Pluto. It is designed to map the spatial and size distribution of interplanetary dust particles in order to verify the existence of the predicted structures in our dust disk, the Zodiacial cloud. SDC provides the first dedicated dust measurements beyond 18 AU, where the Pioneer sensors stopped working. After the Pluto-Charon fly-by, SDC will continue to measure dust on into the Kuiper Belt. These observations will advance our understanding of the origin and evolution of our own solar system and allow for comparative studies of planet formation in dust disks around other stars. SDC is the only experiment to date that was designed, built, and is now operated by students on a deep space mission. We briefly review the scientific motivation for SDC, followed by the instrument description, and report on the observations to date.