

From the Earth to the Local Interstellar Medium: space physics by IBEX

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Interstellar Boundary Explorer, IBEX, is a NASA's small explorer launched in the orbit around the Earth in 2008. IBEX is equipped with two detectors, IBEX-Lo and IBEX-Hi, to collect energetic neutral atoms of hydrogen with energies ranging from 10 eV up to 6 keV across the entire sky to image the heliosphere and its boundary region. Moreover, IBEX-Lo detects interstellar neutral gas of helium, hydrogen, neon, oxygen, and deuterium to determine properties of the local interstellar medium and Sun's motion through it. Throughout ten years of operation, IBEX observations have brought a series of discoveries about the heliosphere, its boundary region, and the interaction processes between the solar medium and the interstellar medium. The most known are the IBEX ENA ribbon and the higher temperature of the local interstellar medium, but they are only a few of many. In this talk a review of the space physics revealed by IBEX will be presented.

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