

R007-01

Zoom meeting A : 11/1 AM1 (9:00-10:30)

09:30-09:45

Plasma themes of the Comet Interceptor mission

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Comets are pristine small bodies and thus provide key information about the solar system evolution. Remote observations by ground observatories have characterized various comets, while in-situ observations by spacecraft have brought much more detailed information on several comets. However, the direct observations by spacecraft fly-by or rendezvous have been limited to the short-period comets, which neared the sun many times in the past and thus lost some of primitive characteristics. The Comet Interceptor mission, led by ESA, aims at a long period comet or an interstellar object. JAXA will provide an ultra-small (24 U) daughter spacecraft, whose closest approach will be less than 1,000 km, allowing the first-ever multi-spacecraft fly-by observations of a comet. Here we give an overview of the mission with an emphasis on plasma aspects. Small gravity and high production rate of comets set neutral-plasma environments that are unique in the solar system, while providing insights into plasma universe.