iTHEMS Colloquium

High-Energy Neutrino Astrophysics in the Multimessenger Era

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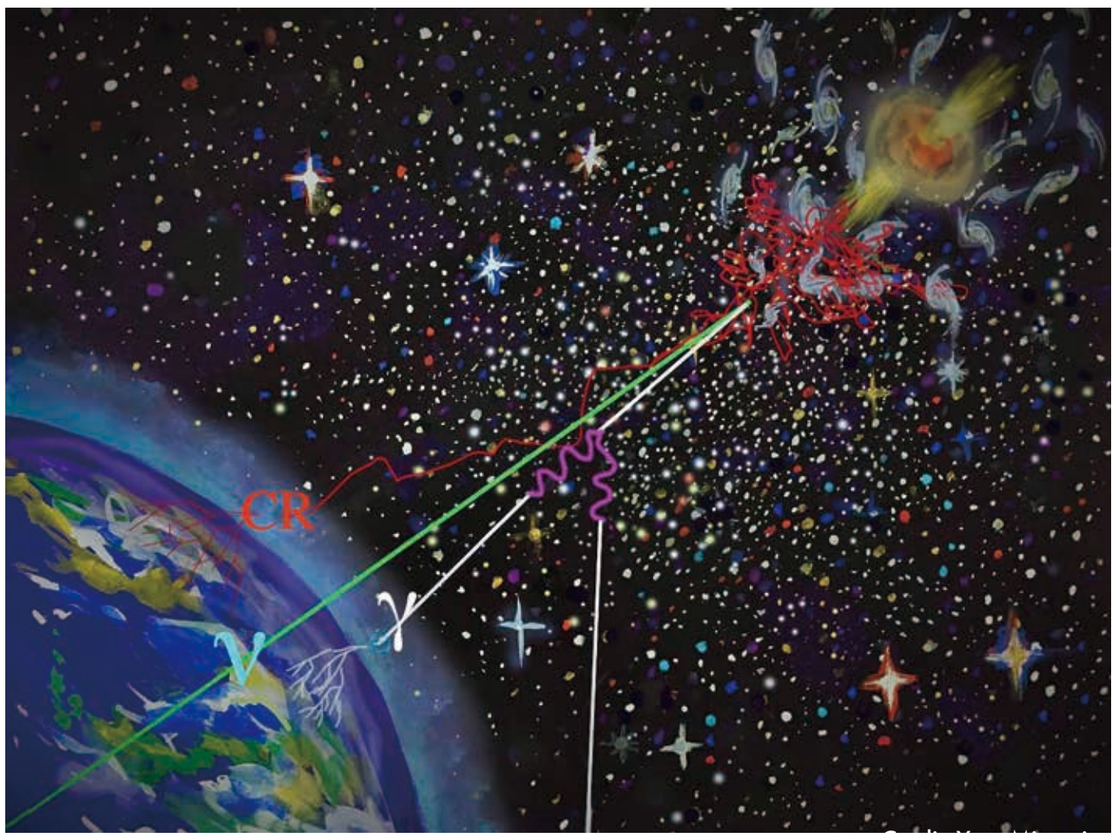
2021 10/28 Thursday 15:00 - 16:30 (JST)

via Zoom
Register here

The discovery of high-energy cosmic neutrinos opened a new window of astroparticle physics. Their origin is a new mystery in the field, which is tightly connected to the long-standing puzzle about the origin of cosmic rays. I will give an overview of the latest results on high-energy neutrino and cosmic-ray observations, and demonstrate the power of "multimessenger" approaches. In particular, I will show that the observed fluxes of neutrinos, gamma rays, and extragalactic cosmic rays can be understood in a unified manner. I will also highlight the recent developments about astrophysical neutrino emission from supermassive black holes and violent transient phenomena. Possibilities of utilizing high-energy neutrinos as a probe of heavy dark matter may be discussed.



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