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# 国台学术报告 NAOC COLLOQUIUM

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**Time: Thursday 2:30 PM, Oct. 27**      **Location: A601 NAOC**

## Turbulence and Magnetic Field in High-Beta Plasma of

### Intracluster Medium

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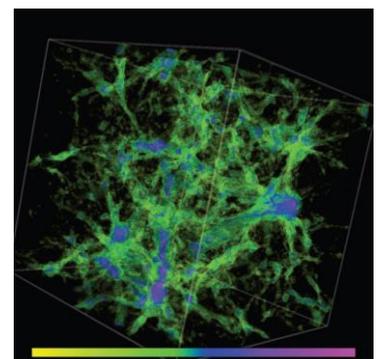


Prof. Dongsu Ryu got B.S.(1983) in Astronomy from Seoul National University in Korea. And he obtained his B.S.(1983) and PhD(1988) in Astronomy from University of Texas at Austin in USA. Then he worked as Postdoctoral Researcher in Astrophysics Group of Fermilab from 1988 to 1990 and at Princeton University from 1990 to 1992, separately. Now he is a professor of the Department of Physics at School of Natural Science UNIST(Ulsan National Institute of Science and Technology) in Korea and is the director of Center for High Energy Astrophysics. He also is Adjunct Researcher of KASI(Korea Astronomy and Space Science Institute) and the director of Center for Theoretical Astronomy. His research interests include shock waves and

turbulence in clusters of galaxies, origin and evolution of magnetic fields and cosmic rays in the universe, and plasma astrophysical phenomena in the large-scale structure of the universe.

### Abstract

The intracluster medium (ICM), which fills the volume of galaxy clusters, is composed of hot, high-beta plasma. Observational evidence and theoretical arguments suggest that the plasma is highly dynamical and probably turbulent, although the properties of turbulence are yet poorly known. The plasma is permeated with magnetic fields as in other astrophysical environments, and the observed fields are likely the results of flow motions. Here, we describe the turbulence in high-beta ICM plasma studied with high-resolution simulations. Along with the properties of turbulence, we discuss shock waves and energy dissipation there.



*All are welcome! Tea, coffee, biscuits will be served at 2:15 PM.*