

**[초IT-01] Cosmic magnetic fields in the large-scale structure
of the universe**

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Magnetic fields appear to be ubiquitous in astrophysical environments. The existence of magnetic fields in the large-scale structure of the universe has been established through observations of Faraday rotation and synchrotron emission, as well as through recent gamma-ray observations. Yet, the nature and origin of the magnetic fields remains controversial and largely unknown. In this talk, I briefly summarize recent developments in our understanding of the nature and origin of magnetic fields. I also describe a plausible scenario for the origin of the magnetic fields; seed fields were created in the early universe and subsequently amplified during the formation of the large-scale structure of the universe. I then discuss the prospect of observation of magnetic fields in the large-scale structure of the universe.