

[GC-24] Astrophysical Origin of Cosmic Magnetism

조정연

충남대학교 천문우주과학과

우주 자기장의 기원은 잘 알려져 있지 않다. 크게 나누어서 우주론적인 기원과 천문학적 기원을 고려할 수 있다. 자기장의 기원이 무엇이든지 간에, 난류는 씨앗자기장을 증폭시키는데 큰 역할을 한다. 본 발표에서는 천문학적인 기원을 가지는 씨앗자기장이 난류 내에서 어떻게 성장하는 지를 논의한다. 또한 과연 관측을 통해서 천문학적 기원과 우주론적 기원을 구분할 수 있는 지를 논의한다.

[GC-25] DEMOGRAPHICS OF SLOAN DIGITAL SKY SURVEY GALAXIES ALONG THE HUBBLE SEQUENCE

Jun-Sung Moon, Hong-Geun Kim, Hyunseop Choi, Kyuseok Oh, Sukyoung K. Yi
Department of Astronomy, Yonsei University, Seoul 120-749, Korea

We present the statistical properties of a volume-limited sample of 7,429 nearby ($z = 0.033 - 0.044$) galaxies from the Sloan Digital Sky Survey Data Release 7. By performing a visual inspection, we classified our sample galaxies according to the Hubble sequence (Hubble 1926, 1936). Then we excluded apparently smaller and flatter galaxies from our database because morphology classification on them turned out to be difficult. Our results cover structural (e.g. concentration index, color, magnitude, stellar mass, etc.), spectroscopic (e.g. velocity dispersion, $H\beta$ absorption line, Fe absorption line, Mg absorption line, accretion rate, H α emission line, etc.), and environmental (e.g. density, etc.) properties of each morphology type based on morphology distribution. For this analysis, we used the recent re-measurements of spectral line strengths by Oh and collaborators (2011). Our statistics confirm the up-to-date understanding on galaxy populations, e.g., correlations between morphology and line strengths and in turn derived ages and so on.