# [포GC-42] Y-band light curve of M101 SN Ia

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Type Ia Supernovae are known as one of the most reliable standard candle regarding to our understanding their explosion mechanism. Recently NIR photometry of SN Ia shows us better promise on the distance measurement. NIR peak luminosity is relatively independent of light curve shape and effect of extinction is obviously less than in optical wavelengths. Among NIR bands, Y-band photometry is suggested to have less scatter and reduced reddening effect than other NIR wavelengths, furthermore it is still unexplored regime to verify its utility. Here we report Y-band light curve analysis of M101 SN Ia to investigate how Y-band can help us to determine accurate distance to the galaxy.

# [포GC-43] Analysis of a New Gravitational Lens FLS 1718+59

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We present our analysis of a newly discovered galaxy-galaxy gravitational lens system in the First Look Survey (FLS) field. This object shows a highly distorted background galaxy (z=0.245) image by a nearby elliptical galaxy (z=0.08), which can be interpreted as a result of gravitational lensing. We model the lens with elliptical isothermal sphere model, and present the mass and potential distribution of the system.