Upper atmosphere of "Hot-Jupiter"

Naoki Terada[1]

[1] STE Lab., Nagoya Univ.

An atmosphere made of hydrogen, oxygen, carbon, and sodium are for the first time observed around an extra-solar planet, HD209458b, with the Hubble Space Telescope. HD209458b is a massive and gaseous planet like Jupiter, which is very close to its parent star located at less than 7 million kilometers from its star and orbits with 3.5 day periods. The atmosphere of HD209458 is highly extended due to an intensive heating from a star (thus it is called one of the 'Hot-Jupiters'), probably forming comet-like tails. We will discuss the environment of the upper atmosphere of the extra-solar planet HD209458b.