

# Theory of Planetary Formation: Present Status and Future Prospects

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Recent astronomical observations showed that the extra-solar planets or planetary systems frequently exist around solar-type stars. These planetary systems have a large diversity, which will bring force speciality and uniqueness of possible lives therein.

I will discuss our present knowledge and future prospects about origin of the diversity of planetary systems, especially the structure and evolution of protoplanetary disks, planetesimal formation, and the late-stage processes of planetary growth.