

## Current status of post-K Exploratory Challenge, computational planetary science

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In FY 2016, as one of research project for post-K supercomputer, "Exploratory Challenge 3 Elucidation of the Birth of Exoplanets and the Environmental Variations of Planets in the Solar System" has been started. In this talk, I'll overview this project (we call this project computational planetary science project for short).

The development of post-K supercomputer was started in 2014, and its planned completion year is 2020, with up to 100 times faster speed on real applications compared to K computer. As one of four "Exploratory Challenges", computational planetary science has been selected, and it is assigned to Kobe University, with other eight research institutes.

The computational planetary science project consists of four sub topics: planetary formation, dynamics and evolution of planets, solar activities and environmental change, and the origin of life. In this talk, I'll overview these topics, computational challenges, and expected scientific products.

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