

Contribution ID: 149

Type: **Oral**

## The Dynamical Evolution of Centaur with Considering the Non-Gravitational Force

*Saturday, May 17, 2025 3:00 PM (15 minutes)*

Since the discovery of the first Centaur object in 1977, objects populated in the planet-crossing orbits between Jupiter and Neptune are believed to be the crucial segments of material transportation and evolution sequence in our solar system. The dynamical study reveals a clear, evidential evolution pathway from the orbital space beyond Neptune to the orbit within Jupiter, which is commonly accepted nowadays. The dichotomy of the Centaur and Trans-Neptunian Objects provides a clue to their origin and dynamical evolution history. However, there are still some unanswered questions. I will present my recent dynamical study in characterizing the dynamic properties of Centaur objects and Short-Period Comets from both qualitative and statistical points of view.

### Section

Solar System/Exoplanets

**Primary author:** CHENG, Yu-Chi (IANCU)

**Presenter:** CHENG, Yu-Chi (IANCU)

**Session Classification:** Solar system and exoplanets