

## Planetesimal size and turbulence strength in a protoplanetary disk

KOBAYASHI, Hiroshi<sup>1\*</sup> ; TANAKA, Hidekazu<sup>2</sup> ; OKUZUMI, Satoshi<sup>3</sup>

<sup>1</sup>Nagoya University, <sup>2</sup>Institute of Low Temperature Science, Hokkaido University, <sup>3</sup>Graduate School of Science, Tokyo Institute of Technology

We investigate the collisional evolution of bodies with radius from 1 to 1000 km in a turbulent disk. The growth of small bodies is affected by turbulence. Once bodies get larger and turbulence is negligible, large bodies start runaway growth. Therefore, the size distribution depends on the strength of turbulence. The size distribution is directly related to that of minor bodies in the Solar System and affects subsequent planet formation.

Keywords: planet formation, planetesimal, asteroids, comets