Formation of Protoplanets in the Region of Terrestrial Planets

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Formation and Evolution of protoplanets from planetesimal swarm embeded in the protoplanetary solar nebula is investigated, by three-dimensional N-body simulation.Initially, the planetesimal swarm is distributed grobally (0.5-1.5AU), in contrast to the local simulation by Kokubo & Ida (1998,1999), so that difference of formation timescale of protoplanets along semi-major axis is clearly seen. Finally, about 15 Mars-sized protoplanets are formed through runaway growth.The difference of semi-major axis between neghboring protoplanets are about 10 Hill radius, which agrees with the local simulation.