様式 2 (Form 2)

（2015 年 1 月改定）

滞在型研究員報告書
Activity Report for the NAOJ Visiting Fellows Program

所　　属 (Institution)	National Astronomical Observatories, Chinese Academy of Sciences
氏　　名 (Name)	Zhang Xiaojia
研究課題名 (Research subject)	Planetary Sciences
滞在期間 (Period of stay)	2016 年　11 月　20 日～　2016 年　12 月　08 日
受入責任者氏名 (NAOJ host researcher)	Yasunori Hori

１．滞在型研究員として国立天文台滞在中に行った活動について簡単にお書きください。
(Summarize your activities during the stay using the NAOJ Visiting Fellows Program.)

Working on collaborative study with Prof. Hori, Prof. Ida(@ELSI) and Prof. Lin (visiting).

２．今回滞在型研究員として得られた成果について簡単にお書きください。
(Summarize your research products from the stay.)

Project: Migration of Gas Giants with Planetary Accretion in Evolving Disks

In the preview studies of migration rate within a range of parameter space, the very slow inward migration for single Jovian planets can only be achieved with very low disk mass (Duffell et al. 2014) or significantly low disk accretion rate (Durmann & Kley 2015). Neither can give a general solution to save planets with Jupiter or Saturn masses before the gas disk depletion. By taking a more comprehensive view of the migration of forming gas giants, we have focused on study of the migration rate of massive planets, by investigating the relationship between the migration and the various disk characters as well as the planet mass, through their connections to the gap shape and the flow rate passing though the planet's orbit. We will further complete this study by considering planetary accretion in the early stage and the depletion of the disk in the later stage. We expect to link the final mass and location of planets with self- consistent disk

models and try to better understand the observed distribution, with help of 2D and 3D hydrodynamical simulations.

３．この制度について何か御意見がありましたら、お書きください。
(Please provide any comments about this program.)

None.