

# Activity Report of the NAOJ Visiting Scholar Program

Host Project/Division: Theory Name of Host Scientist: Prof. Fumitaka Nakamura

Name of Visiting Scholar: Jonathan C. Tan

Title: Visiting Professor, Visiting Associate Professor, Visiting Research Fellow

(Choose the appropriate one)

Period: from 17/04/14 to 17/05/16

## I. Report from the visiting scholar

[ i ] Achievement during the period of stay (in comparison with the initial plan)

(Collaborative Research)

Tan collaborated with Fumitaka Nakamura on research related to the simulation of Giant Molecular Cloud (GMC) collisions.

Tan collaborated with Benjamin Wu on research related to GMC collisions.

Tan discussed a potential collaboration with Patricio Sanhueza.

(Education)

Tan gave a NAOJ colloquium talk, A Light in the Dark - Massive Star Birth Through Cosmic Time, on 28<sup>th</sup> April 2017. Tan gave a NAOJ Theory seminar, Inside-Out Planet Formation, on 8<sup>th</sup> May.

Tan also gave talks at U. Tokyo (2<sup>nd</sup> May), RIKEN (9<sup>th</sup> May), Nagoya (11<sup>th</sup> & 12<sup>th</sup> May), Osaka (15<sup>th</sup> May).

(Others)

[ ii ] Any comments on this program

Tan thanks the NAOJ staff for their great hospitality during this visit.

[ iii ] List of publications and presentations by the visiting scholar in collaboration with NAOJ staff or graduate students

GMC Collisions as Triggers of Star Formation. III. Density and Magnetically Regulated Star Formation, Wu, Benjamin; Tan, Jonathan C.; Christie, Duncan; Nakamura, Fumitaka; Van Loo, Sven; Collins, David, 2017, ApJ, 841, 88

The Interstellar Medium and Star Formation of Galactic Disks. I. ISM and GMC properties with Diffuse FUV and Cosmic Ray Backgrounds, Li, Qi; Tan, Jonathan C.; Christie, Duncan; Bisbas, Thomas G.; Wu, Benjamin, ApJ, submitted, (arXiv:1706.03764)

GMC Collisions As Triggers of Star Formation. IV. The Role of Ambipolar Diffusion, Christie, Duncan; Wu, Benjamin; Tan, Jonathan C., ApJ, submitted, (arXiv:1706.07032)

GMC Collisions as Triggers of Star Formation. V. Observational Signatures, Bisbas, Thomas G.; Tanaka, Kei E. I.; Tan, Jonathan C.; Wu, Benjamin; Nakamura, Fumitaka, ApJ, submitted, (arXiv:1706.07006)

Several other papers in preparation.

II. 以下の項目について、受入教員が記入してください。

Report from the host scientist

[ iv ] 本制度に対する意見、要望など

Any comments on this program