Chi Yan

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Education

Johns Hopkins University — **Baltimore, MD, USA**
Ph.D Candidate in Planetary Sciences — *2016-2020*

University of Toronto — **Toronto, ON, Canada**
M.A. in Physics — *2015-2016*

Nanjing University — **Nanjing, Jiangsu, China**
B.Sc. Honors in Physics — *2011-2015*

Research Experience

Johns Hopkins University — **Baltimore, MD**
Graduate Research Assistant (Advisor: Sabine Stanley)

- Use the geomagnetic octupole over the past 10^4 years to constrain the properties of a stably stratified layer in the Earth's core. (Model:*mMoSST*)
- Explore possible ingredients such as stable layers and thermal states that would help reproduce a Saturn-like axisymmetric magnetic field. (Models:*mMoSST* & *MagIC*)
- Investigate past Martian dynamo activities with varying thermal states as well as other core properties to interpret Mar's present-day hemispherical crustal magnetic field. (Models:*mMoSST* & *MagIC*)

Computational Skills

Code: mMoSST, MagIC, Rayleigh,

Language: ForTran, Python, C++

Parallel Programming: MPI, OpenMP

HPC batch schedulers: SLURM, PBS

Scripting: Bash (Shell Script)

Software: Matlab, LaTex, MS Office

Publications

[1]: **Yan, C.** and Stanley, S., "Sensitivity of the Geomagnetic Octupole to a Stably Stratified Layer in the Earth's Core", *Geophys. Res. Lett*, 45, [2018]

[2]: **Yan, C.** and Stanley, S., "Recipe for a Saturn-like dynamo", *in prep.*

Conference Proceedings

[5]: **Yan, C.** and Stanley, S., Recipe for a Saturn-like Dynamo, *AGU Fall meeting* , 2019 **[Invited]**

[4]: **Yan, C.** and Stanley, S., Recipe for a Saturn-like Dynamo, *Theo Murphy Royal Society Meeting: Revealing Saturn's deep interior for the first time with Cassini*, 2019

[3]: **Yan, C.** and Stanley, S., Sensitivity of the Geomagnetic Octupole to a Stably Stratified Layer in the Earth's Core, *Study of Earth Deep Interior*, 2018

[2]: **Yan, C.** and Stanley, S., Sensitivity of the Geomagnetic Octupole to a Stably Stratified Layer in the Earth's Core, *AGU Fall meeting*, 2017

[1]: **Yan, C.** and Stanley, S., Sensitivity of the Geomagnetic Octupole to a Stably Stratified Layer in the Earth's Core, *Gordon Research Conference: Interior of the Earth*, 2017

Teaching Experience

Guest Lecturer

Johns Hopkins University — **Baltimore, MD**
AS.270.404 Planetary Interiors (Core Dynamics) — *Spring 2019*

Teaching Assistant

University of Toronto — **Toronto, ON**
PHY131/132 Introduction to Physics I,II — *2015-2016*

Additional Training

- UofT SciNet – Certificate in Scientific High Performance Computing — *Spring 2016*
- JHU Teaching Academy – Teaching Institute Certificate Program — *Fall 2019*