

**JULIE ALANNA INGLIS**  
Californian Institute of Technology  
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## EDUCATION

### **PhD in Planetary Sciences (in progress)**

California Institute of Technology (2020-)

Advisor: Heather Knutson

- Caltech Center for Comparative Planetary Evolution Graduate Fellow (2021-)

### **MSc in Planetary Sciences**

California Institute of Technology (2020-2022)

### **Honours Bachelor of Science in Physics**

McMaster University (2016-2020)

Summa Cum Laude, Dean's Honour Roll all years, Minor in Mathematics

## RESEARCH POSITIONS

**Thermal Modelling Specialist**, McMaster Interdisciplinary Satellite Team

(October 2018 – April 2020)

**USRA Funded Summer Research Associate**, McMaster University

Supervisor: Dr Ralph Pudritz (May – August 2019)

**USRA Funded Summer Research Associate**, Dalhousie University

Supervisor: Dr. Jeff Dahn (May-August 2018)

## FUNDING AND AWARDS

**NSERC CGS-M Masters Scholarship**, \$17,500, 2020, McMaster University (declined)

**NSERC USRA Research Grant**, \$4,500, 2019, McMaster University

**NSERC USRA Research Grant**, \$4,500, 2018, Dalhousie University,

**NSERC USRA Research Grant**, \$4,500, 2018, McMaster University (declined)

**University Senate Scholarship**, \$800, 2019 McMaster University

**Valley City Manufacturing Co. Scholarship**, \$1600, 2018, McMaster University

**Gerald and Verna Simpson Memorial Scholarship**, \$800, 2018, McMaster University

**Jim Waddington Prize for Physics and Astronomy**, \$1000, 2017, McMaster University

## PUBLICATIONS

7. The JWST Transiting Exoplanet Community Early Release Science Team (**including Julie Inglis**)  
“Identification of carbon dioxide in an exoplanet atmosphere” (preprint, accepted to Nature)
6. Xuan, Jerry W. et al. (**including Julie Inglis**) " A Clear View of a Cloudy Brown Dwarf Companion from High-Resolution Spectroscopy" (preprint, accepted to ApJ)
5. M. Alessi, **J. Inglis**, and R. E. Pudritz, “Formation of Planetary Populations – III. Core composition and atmospheric evaporation”, MNRAS, Vol. 497, 4814-4833, 2020
4. Aaron Liu, Ning Zhang, Hongyang Li, **Julie Inglis**, Yiqiao Wang, Shuo Yin, Haohan Wu and J. R. Dahn.  
“Investigating the Effects of Magnesium Doping in Various Ni-rich

Positive Electrode Materials for Lithium Ion Batteries”, Journal of the Electrochemical Society, Vol. 166, Issue 15, 2019

3. Zhang, Ning; Zaker, Nafiseh; Li, Hongyang; Liu, Aaron; **Inglis, Julie**; Jing, Linda; Li, Jing; Li, Ying; Botton, Gianluigi A., and Dahn, Jeff. “Cobalt-free Nickel-rich positive electrode materials with a core-shell structure” Chemistry of Materials , Vol 31, Issue 24, 2019
2. Marc Cormier, Ning Zhang, Aaron Liu, Hongyang Li, **Julie Inglis**, Jeff Dahn. “Impact of Dopants (Al, Mg, Mn, Co) on the reactivity of  $\text{Li}_x\text{NiO}_2$  with the electrolyte of Li-ion batteries”, Journal of the Electrochemical Society, Vol. 166, Issue 13, 2019
1. Hongyang Li, Marc Cormier, Ning Zhang, **Julie Inglis**, Jing Li, and J.R. Dahn. “Is Cobalt Needed for Lithium Ion Batteries?” Journal of the Electrochemical Society, Vol. 166, Issue 4, 2019

## TALKS

**DIX Planetary Sciences Seminar** Caltech, June, 2022

**Future Ignited (Invited)** Caltech, October, 2021

**KPIC Workshop on Atmospheric Retrieval and High-Resolution Spectroscopy (Invited)**

Caltech, June, 2021

**Canadian Undergraduate Physics Conference (CUPC) (Contributed)** McGill University, November, 2019

## POSTERS

**Cool Stars 21**, *Atmospheric properties of ROXs-42Bb from Low and High Resolution Spectroscopy*  
July, 2022

**Exoplanets IV**, *Atmospheric properties of ROXs-42Bb from Low and High Resolution Spectroscopy*  
May, 2022

## TEACHING AND MENTORSHIP

**Co-Director/Creator of Caltech GPS Division Mentorship Program**

California Institute of Technology (June, 2021 – present)

**Undergraduate Physics and Math Tutor**

McMaster University (September, 2017 – April 2020)

**Teaching Assistant**

California Institute of Technology

Ge/Ay 117: Bayesian Statistics (Winter 2022)

McMaster University (September, 2019 – April 2020)

Physics 1D03: Introductory Mechanics, (Fall 2019)

Physics 1E03: Waves, Electricity and Magnetism (Winter 2020)

## OUTREACH AND SERVICE

**Caltech GPS Division Diversity Working Group Founding Member**

California Institute of Technology (January 2021 – present)

**Caltech Graduate Student Council Board Member (Housing and Security Chair 2021, Rep 2022)**

California Institute of Technology (July 2021 – present)

**Women in Geology and Planetary Sciences Board Member (Treasurer 2021, President 2022)**

California Institute of Technology (July 2021 – present)

**Diversity in Science Art Exhibit Contributor**

California Institute of Technology  
“A Team Of all Colours”

**Science Outreach Volunteer**

Skype a Scientist (Sept 2020 – present)  
Engage STEM Invited Speaker (July 30, 2021)  
Caltech Astronomy Virtual Lecture Series Panelist (February 2021)  
McMaster Let’s Talk Science Outreach (Sept 2018 – 2020)

**McMaster Undergraduate Physics Society Board Member (VP Social, 2018/19, 2<sup>nd</sup> Year Representative 2017/18)**

McMaster University (Sept 2017 – Sept 2019)

**Girls in Science Day Team Leader**

McMaster University (April 2019)

**Planetarium Operator**

Halifax Planetarium (Spring/Summer 2018)