

Australian Planetary Science Meeting 2024

DAY 1 Science Presentations | QUT (09:00 – 17:00)

Time (AEST)	Monday, 5 February 2024
08:45	Registration and check Venue: Kindler Theatre: P421
09:00	Introduction and Welcome Venue: Kindler Theatre: P421 Host: Andy Tomkins
09:20	Session 1: The Moon Host: Jonathon Ralston Venue: Kindler Theatre: P421 <ul style="list-style-type: none">• Keynote: M. Fujimoto <i>JAXA's concept for Moon-to-Mars</i>• N.E. Timms: <i>Petrographic insights from textural complexity of lunar glass beads</i>• K. Miljkovic: <i>Numerical impact modelling applied to understanding the structure and resource potential of lunar and planetary surfaces</i>• J. Perkins: <i>Analysis of Icy Lunar Regolith Simulant using LIBS</i>• P. Bland: <i>The Binar Prospector mission: Magnetometry of the Moon at ultimate resolution</i>
11:10	Morning tea
11:30	Session 2: Exoplanets Host: David Flannery Venue: Kindler Theatre: P421 <ul style="list-style-type: none">• J. Horner: <i>Which ExoEarths should we search for life?</i>• B.D. Carter: <i>Planetary Science at the University of Southern Queensland</i>• D.J. Price: <i>What have we learnt about the formation of our solar system from observing protoplanetary discs?</i>• C. Pinte: <i>First results from the ALMA planet hunting campaign: the exoALMA Large Program</i>
12:30	Lunch

<p>13:30</p>	<p>Session 3: Inner Solar System Host: Andy Tompkins Venue: <i>Kindler Theatre: P421</i></p> <ul style="list-style-type: none"> • P. Bland: <i>A National Space Science Mission Program</i> • E. Jones: <i>The Role of Layered Ejecta Craters In Our Understanding of Mars</i> • D. Flannery: <i>Mars Sample Return Update</i> • M.W.M. Jones: <i>In-situ energy dispersive X-ray diffraction microscopy with the Planetary Instrument for X-Ray Lithochemistry (PIXL) on Mars</i> • A. Gunn: <i>Aeolian Sediment pathways on Mars</i> • T. Burke: <i>An Atlas of Apatite and Merrillite in Martian Meteorites: Insights into classification and REE geochemistry</i>
<p>15:15</p>	<p>Afternoon tea</p>
<p>15:30</p>	<p>Session 4: Planetary Dynamics Host: Rachel Kirby</p> <ul style="list-style-type: none"> • M. van Kranendonk: <i>LifeSpringsMars</i> • S. Turner: <i>Earth's earliest crust</i> • F.A. Capitanio: <i>Origin of Ishtar Terra from a craton formation mechanism on Venus</i> • C. O'Neill: <i>Early solar system magmatism and crustal dynamics</i> • H. Devillepoix: <i>The LUnar Meteoroid Impact Observer (LUMIO) mission</i>
<p>16:30</p>	<p>ECR lightning talks Host: Jayden Fryer</p> <ul style="list-style-type: none"> • V. Hoogland: <i>Late Archean microbial life recorded in the 2.63 Ga Carawine Formation</i> • B. Orenstein: <i>X-ray Diffraction with PIXL on Mars</i> • T. Djokic: <i>Trace elements reveal marine, subaerial, & hydrothermal controls on an early life habitat: The c. 3.48 Ga Dresser Formation, Pilbara Craton</i>
<p>17:00</p>	<p>Poster session Venue: The Cube, P Block level 4</p> <ul style="list-style-type: none"> • J. Fryer: <i>Mn-Oxide Microfossils; Durable Martian Biosignatures?</i> • J. Jolly; L. McGee: <i>Impact Driven Volatilisation: Copper Isotopes in Tektites</i> • D. Eyckens; N. Rigopoulos; W. Yang; S. Holmes; R. Simons: <i>Passive Coatings for Lunar Dust Mitigation</i> • S. Jones: <i>Yandiwanba: QUT's New Lunar Robotic Research Facility</i> • C. McNally: <i>The Compressive Strength of Lunar Regolith Simulant Geopolymer Blocks</i> • E. Rose; C. Hargrave; M. Shaw: <i>Exploring Lunar Lava Tubes</i> • P. Nemere: <i>PIXLISE: Collaborative Analysis Tool for Martian Data</i> • A. Chang; C. O'Neill: <i>Ambient Noise Tomography in Crustal Scale</i> • E. Brown; S. Marsden; S. Jeffers; A. Heitzmann; J. Barnes; C. Folsom: <i>Can we Detect Planets Around Extremely Active Young Suns?</i>

Australian Planetary Science Meeting 2024

DAY 2 Science Workshop | CSIRO (9:00 – 14:30)

DAY 2 Science Presentations | QUT (15:30 – 17:30)

Time (AEST)	Tuesday, 6 February 2024
08:00	Bus to CSIRO <i>Pick up from Stop 95, Alice St.</i>
09:00	Check-in to CSIRO QCAT
09:30	Welcome Host: <i>Kimberley Clayfield</i>
10:00	Session 1 Planetary Space Science: The Big Questions
	Host: <i>Nick Carter</i> <ol style="list-style-type: none">1. What do you see as the big planetary space science questions/challenges?2. Why are these questions/challenges important?3. What do we know already about these questions from past space missions?
10:45	Morning Tea
11:00	Session 2 Planetary Missions and Technologies: How do we respond to the Big Questions?
	Host: <i>Chad Hargrave</i> <ol style="list-style-type: none">1. What missions are planned that are of interest or could be enhanced to address these planetary science questions?2. What missions are required to address the planetary science questions?3. What technologies would be needed to gather the data needed?
11:45	Session 3 Advancing Australia's Planetary Science Role and Opportunities
	Host: <i>Matt Shaw</i> <ol style="list-style-type: none">1. What is Australia's unique role and advantage?2. What efforts are Australia currently involved in?3. What coming activities can we get involved in?4. What is holding Australia back?
12:30	Lunch

13:00	Session 4 APSM: Exploring Practical Ways Forward and Wrap-Up
	Host: <i>Nick Carter</i> <ol style="list-style-type: none"> 1. How do we coordinate activities? 2. What partnerships and collaborations do we need to establish? 3. Opportunities to collaborate - nationally, internationally? 4. How can we capture Australian space capability? 5. What other activities do we need to progress? 6. Workshop Final Comments
13:45	QCAT Tour
14:30	Bus departs QCAT for QUT
15:30	Session 5: Meteorites
	Host: Vera Hoogland Venue: <i>Kindler Theatre: P421</i> <ul style="list-style-type: none"> • Y. Liu: <i>TBA</i> • A. Tomkins: <i>Ureilite meteorites: Our only extensive sample suite from the mantle of a dwarf planet</i> • R.K. Kirby: <i>Ordinary chondrites, IIE iron meteorites and the theorised HH chondrite group: a statistical investigation of the groups and genetic relationships</i> • C.J. Todd: <i>Colour analysis of meteors using the Desert Fireball Network</i> • T. Burke: <i>In-Situ Meteorite Fission Track Thermochronology with Application to Mesosiderites and Pallasites</i> • A.J. Cavosie: <i>Global significance of Australian Impact Record</i>
17:00	Thanks and close Host: <i>David Flannery</i>

APSM 2024 Coordination Contacts

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