

The Core of the Moon
 May 20-22, 2019
 Palais du Pharo, Marseille, France

Day 1: Monday, May 20

Time	Title	Speaker
9:30	Coffee	
10:00	Introduction	J�rome Gattacceca
	Moon formation, orbital evolution, and early differentiation	
10:10	Isotopic constraints on the origin of the Moon	Thomas Kruijer
10:30	Isotopic evidence for the origin of the Moon	Thorsten Kleine
10:50	Chronological Constraints on the Formation and Evolution of the Moon	Lars Borg
11:20	Insights on the interior of the Moon from accretion dynamics	Julien Salmon
11:40	Evection Resonance in the Early Earth-Moon System	Raluca Rufu
12:00	The role of the core in shaping the Moon's chemical and physical evolution	Kevin Righter
12:20	Lunch	
	Internal structure	
13:50	Seismological constraints on Moon core	Raphael F. Garcia
14:10	On the presence of partial melt in the deep lunar interior	Amir Khan
14:30	Gravity constraints on the interior structure of the Moon	Isamu Matsuyama
14:50	The shape of the Moon's core	Mark Wieczorek
15:10	Coffee	
15:40	Constraints on the Deep Lunar Interior Based on the Tidal Response Parameters	Yuji Harada
16:00	Lunar interior parameters in IfE LLR analysis	Franz Hofmann
16:15	Dynamical model of lunar core and observational constraint by LLR	Nicolas Rambaux
16:35	From SEIS on Mars to a new VBB on the Moon	Philippe Lognonn�
17:05	Discussion	
17:35	END DAY 1	
18:00	Welcome Cocktail (on site)	

Day 2: Tuesday, May 21

Time	Title	Speaker
	Core composition	
09:00	Liquid iron alloys under high pressure: Implications for the core of the Moon	Guillaume Morard
09:30	Constraints on the lunar core composition and thermal state from geophysical data and thermodynamic properties of liquid iron alloys	Attilio Rivoldini
09:50	Fe ₃ Si & Ni ₃ Si structures and equations of state at planetary core-relevant conditions	Andrew Jamieson
10:05	Constraints on the Moon core composition from elastic properties of liquid Fe-alloys at high pressure	Hidenori Terasaki
10:25	Coffee	
10:55	Constraints on the Moon core composition from elastic properties of liquid Fe-alloys at high pressure	Hidenori Terasaki
11:15	Computational and Experimental Sound Velocities of Iron Alloys at Lunar Core Conditions	Marisa Wood
11:35	Thermal expansion of liquid Fe-S alloys at high pressure	Fang Xu
	Paleomagnetism	
11:55	Fidelity of the lunar paleointensity record	Sonia Tikoo
12:15	Lunch	
	Paleomagnetism	
13:45	Magnetic field recording properties of lunar glasses	Kimberly Hess
14:05	The paleoinclination of the early lunar dynamo	Claire Nichols
14:25	New paleomagnetic constraints on the lunar magnetic field evolution	Camille Lepaulard
14:45	The end of the lunar dynamo	Benjamin Weiss
15:15	Coffee	
	Crustal magnetism (Part 1)	
15:45	Lunar magnetism: Origin and implications for the former core dynamo	Lon Hood
16:05	The Lunar crustal field	Erwan Th�bault
16:25	New high resolution magnetic maps of the Moon and their interpretations	Dhananjay Ravat
16:45	The SpacelL Magnetic Investigation of the Moon	Oded Aharonson
17:05	Discussion	
17:35	END DAY 2	
19:30	Group dinner at Cercle Militaire	

Day 3: Wednesday, May 22

Time	Title	Speaker
Crustal magnetism (Part 2)		
09:00	Insights on the core dynamo field from crustal magnetic anomalies	Douglas Hemingway
09:20	Magnetic Anomalies Within the Crisium Basin	Seul-Min Baek
09:40	Minimum lunar paleofields from crustal magnetic anomalies	Ian Garrick-Bethell
10:00	Crustal magnetism associated with SPA and Nectarian-aged basins: Perspectives from a new gradient-only magnetic field of the Moon	Michael Purucker
10:20	Coffee	
10:50	Constraining the strength of impact-generated magnetic fields and their propagation through a realistic lunar interior	Rona Oran
11:10	No correlation between magnetic field and GRAIL gravity	Shengxia Gong
Dynamos		
11:25	Regimes of turbulence and associated dynamos driven by tides and libration	Michael Le Bars
11:55	A lunar dynamo driven by mantle precession and convection	Ankit Barik
12:15	Lunch	
Dynamos (continued)		
13:40	Precession driven dissipation in the liquid lunar core, past and present	Noir Jerome
14:00	Precession driven dynamo in spheres at low viscosity	Nathanael Schaeffer
14:20	The role of core-mantle electromagnetic coupling in the lunar precession dynamo	Jacob Abrahams
14:40	Mechanically Generated Ancient Lunar Dynamo: Constraints from Reconstructions of its Past Cassini State	Mathieu Dumberry
15:00	Rotating convection in stably-stratified planetary cores	David Cebon
15:20	Coffee	
15:50	How to Sustain an Early Lunar Core Dynamo via Convection	Alex Evans
16:10	Basal Magma Ocean Dynamo as the Origin of the Ancient Lunar Magnetic Field	Krista Soderlund
16:30	Constraining the range of chemical forcing for the dynamo from inner core crystallization	Mathieu Laneuville
16:50	Crystallization of the lunar core	Tina Rückriemen
17:10	Discussion	
17:40	END DAY 3	
Posters		
	Transition from wave turbulence to geostrophic turbulence in rotating fluids: an experimental study	Thomas Le Reun
	TBD	Geoffrey Baron
	Low-velocity and low-viscosity zone above the core-mantle boundary of the Moon	Koji Matsumoto
	Geochemical estimates of Earth's core heat content at the end of accretion	Renaud Deguen
Attending		
	Quesnel, Yoann	
	François Demory	
	Katarina Miljkovic	
	Agnes Fienga	
	Adrien Broquet	
	Ludovic Hugué	
	Doris Breur	
	Tim Van Hoolst	
	Daniele Antonangeli	
	Philippe Cardin	
	Minoru Uehara	
	Quentin Simon	