



Scientific Program

MONDAY, NOVEMBER 18

09:00 Registration & welcome address

Session I: Big Bang nucleosynthesis, nuclear reactions and early Universe

(chair: E. Vangioni)

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| 09:15 | Lithium predictions in the standard Big Bang nucleosynthesis | C. Pitrou |
| 09:50 | Theoretical study of the astrophysical capture reaction $\alpha + d \rightarrow {}^6\text{Li} + \gamma$ and primordial abundance of ${}^6\text{Li}$ in three-body model | E. Tursunov |
| 10:10 | The interaction of neutrons with ${}^7\text{Be}$ and the lack of standard solutions to the primordial ${}^7\text{Li}$ problem | M. Gai |
| 10:30 | Experimental challenges for the lithium problem in Big Bang nucleosynthesis | N. Rijal |

10:50-11:15 - Coffee break & Poster viewing

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| 11:15 | Measurement of nuclear reactions that create and destroy lithium and beryllium during BBN | B. Davids |
| 11:50 | Big Bang Nucleosynthesis with time-dependent quark mass | K. Mori |
| 12:15 | Cosmological solutions to the Lithium problem | G. Mathews |

12:35-14:00 - Lunch & Poster viewing

(chair: M. Asplund)

14:00	Primordial Nucleosynthesis after Planck: Concordances, Lithium Problems, and Dark Matters	B. Fields
14:35	Primordial ${}^7\text{Li}$ puzzle: particle physics or stellar physics?	G. Farrar
14:55	Chemical separation of Li + ions by primordial magnetic field before the Galaxy formation	M. Kusakabe
15:15	Inhomogeneous primordial magnetic field and its impact on Big Bang lithium problem	Y. Luo
15:35	The role of lithium in first stars nucleosynthesis patterns	R. De Boer

15:55-16:30 - Tea break & Poster viewing

Session II: Lithium in stellar structure and evolution

16:30	The evolution of Lithium content in low-mass pre-main sequence stars and its connection with rotation	J. Bouvier
17:05	Lithium during the pre-MS accretion phase	S. Cassisi
17:25	3D-hydrodynamical simulations of a planet-like accretion by a low-mass star: effects on the physical structure and lithium abundance	C. Abia

TUESDAY, NOVEMBER 19

(chair: I. Dominguez)

09:00	How much ${}^7\text{Li}$ can be theoretically produced by novae?	J. Jose
09:35	Cautions on Abundance Studies of Novae	S. Shore
10:00	Observations of lithium and beryllium in novae	L. Izzo

10:35-11:05 - Coffee break & Poster viewing

11:05	Turbulent mixing and light element production during the initiation of a classical nova explosion	G. Leidi
11:25	Production of lithium in primordial supernovae	A. Heger
12:00	Lithium-6 and carbon isotopic ratio as diagnostics of the lithium-enrichment mechanism in red giants	C. Aguilera
12:20	On the lithium rich giant stars puzzle	R. de la Reza

12:40-14:00 - Lunch & Poster viewing

(chair: C. Deliyannis)

14:00	Physical processes affecting lithium in stellar interiors	N. Lagarde
14:35	What if massive stars could produce lithium?	D. Szecsi
14:55	Lithium evolution in RGB and AGB stars	S. Cristallo

15:30-16:00 - Tea break & Poster viewing

Session III: Lithium in stellar clusters

16:00	Intermediate-to-low mass stars in open clusters and the evolution of Li	B. Twarog
16:35	Lithium evolution in young open clusters from the Gaia-ESO survey	E. Franciosini
16:55	The age of the Hyades from the lithium depletion boundary method	N. Lodieu

WEDNESDAY, NOVEMBER 20

(chair: B. Anthony-Twarog)

09:00	Evolution of the correlation between Li depletion and angular momentum in open cluster F dwarfs	A. Steinhauer
09:35	The lithium-rotation connection in the young suns of M35	R. Jeffries
09:55	Lithium in the context of multiple populations in Globular Clusters	F. D'Antona

10:30-11:00 - Coffee break & Poster viewing

11:00	Lithium and proton-capture elements in globular clusters: implications for the multiple populations	V. D'Orazi
11:20	Lithium evolution in the Globular Clusters	M. Aoki
11:45	Lithium abundances in globular clusters	N. Sanna

Free afternoon with Rome tour

THURSDAY, NOVEMBER 21

Session IV: Observations of Lithium

(chair: A. Korn)

09:00	Un-evolved stars as primordial abundance tracers	K. Lind
09:35	The primordial ${}^7\text{Li}$ and ${}^6\text{Li}$ problems with exquisite ESPRESSO/VLT observations	E. Wang
10:00	Spectroscopic determination of stellar lithium abundances	M. Steffen

10:35-11:05 - Coffee break & Poster viewing

11:05	Explaining the lithium meltdown in the dwarf stars using the red giant branch stars	A. Mucciarelli
11:25	News insights in the cosmological lithium problem: lithium in the most iron-poor dwarf stars known	J. Gonzalez
11:45	First detection of lithium in massive stars	I. Neguerela
12:05	Cosmological Lithium Preserved in Hot Dwarf Atmospheres	X. Gao

12:30-14:00 - Lunch & Poster viewing

(chair: F. Dell'Agli)

14:00	Lithium in pre-MS stars and brown dwarfs	R. Rebolo
14:35	Lithium depletion in open clusters and field solar twins, and the connection between Li and rocky planets	M. Carlos
15:00	Mystery of Lithium in FS CMa Stars	D. Korcakova

15:20-15:50 - Tea break & Poster viewing

15:50	Observations of Li-rich giant stars in the Galaxy and in the Magellanic Clouds	A. Garcia-Hernandez
16:25	The Gaia-ESO survey: lithium in evolved giant stars	L. Magrini
16:45	The Lithium-rich giants in LAMOST Survey	H. Yan
17:05	Interstellar lithium in nearby galaxies	C. Howk

Social dinner at 8 p.m.

FRIDAY, NOVEMBER 22

Session V: Lithium in the Milky Way and nearby galaxies

(chair: M. Hernanz)

09:00	Lithium and the chemical evolution of the Milky Way	F. Matteucci
09:35	Lithium enrichment in the Galaxy: A study using the GALAH and Gaia surveys	Deepak
09:55	Origin of Li anomaly in core He burning stars: Constraints on Galactic Li enrichment	B. Yerra
10:15	From the cosmological lithium problem to the Galactic lithium evolution	X. Fu

10:35-11:00 - Coffee break & Poster viewing

11:00	Lithium evolution in the Milky Way discs: the view using large stellar samples	R. Smiljanic
11:35	The AMBRE project: Lithium in the Galactic discs and nature of Li-rich giants	P. de Laverny
11:55	Signatures of stellar depletion in the Spite plateau	J. Melendez

12:30-14:00 - Lunch & Poster viewing

(chair: M. Castellani)

14:00	Lithium in the closest satellite of our Milky Way	G. Cescutti
14:20	Lithium Nucleosynthesis in Galactic Interactions	T. Prodanovic
14:40	News lights on the lithium ISM decrease at super-solar metallicities	G. Guiglion

16:00 Round table - concluding remarks