



Final programme

Invited reviews: 25 min + 5 min questions

Long contributed talks: 25 min + 5 min questions

Short contributed talks: 12 min + 3 min questions

Sunday (13/05/2012)

18:00 - 20:00 Registration

20:00 - 21:00 Welcome cocktail

Monday (14/05/2012)

8:00 - 8:45 Registration (entrance of the conference hall)

8:45 - 9:00 Welcome address

--> Chair: Claudio Mendoza

9:00 - 9:15 The discovery of oxygen in the Universe (*Grażyna Stasińska*)

9:15 - 9:45 Why we need to map oxygen in the Universe (*Nikos Prantzos*)

9:45 - 10:15 How well do we know oxygen yields from massive stars? (*Sylvia Ekström*)

10:15 - 10:45 Oxygen production on the AGB and the relevance of planetary nebulae to map the oxygen abundance in galaxies (*Amanda Karakas*)

10:45 - 11:15 Coffee break

11:15 - 11:45 The Solar oxygen abundance (*Martin Asplund*)

11:45 - 12:15 Alternative determinations of the Solar oxygen abundance (*Héctor Socas-Navarro*)

12:15 - 12:30 The Solar oxygen abundance as derived using MHD atmospheric models (*Damian Fabbian*)

12:30 - 16:00 Lunch & beach

--> Chair: Martin Asplund

16:00 - 16:30 Constraints on the Solar oxygen abundance from meteorites, planets, and other planetary objects (*Katharina Lodders*)

16:30 - 17:00 Oxygen abundance determinations in solar-type stars (*Iván Ramírez*)

17:00 - 17:30 Oxygen in cool stars according to CO5BOLD (*Hans-Guenter Ludwig*)

17:30 - 18:00 Coffee break

18:00 - 18:30 Galactic evolution of oxygen: 3D effects on near-UV OH lines (*Jonay Isai González-Hernández*)

18:30 - 19:00 Oxygen abundance determinations in cool giant stars (*Sergei Andrievski*)

19:00 - 19:30 Oxygen in red giants from near-infrared OH lines: 3D effects and first results from the Apache Point Observatory Galactic Evolution Experiment (*Carlos Allende-Prieto*)

19:30 - 19:45 Oxygen variations in globular clusters and the multiple population scenario(s) (*Valentina D'Orazi*)

19:45 - 20:00 Oxygen in globular clusters (*Thibaut Decressin*)

20:00 - Free evening

Tuesday (15/05/2012)

--> Chair: Danny Lennon

- 9:00 - 9:30 Oxygen abundance determinations in A-type supergiants: methods and uncertainties (Norbert Przybilla)
9:30 - 10:00 Oxygen abundance determinations in OB dwarfs and supergiants (Miguel A. Urbaneja)
10:00 - 10:15 Present-day cosmic oxygen abundance in the Solar neighbourhood (María Fernanda Nieva)
10:15 - 10:30 Oxygen and other alpha-elements vs Iron in massive stars at the Galactic Center: Clues on a top-heavy star formation history? (Francisco Najarro)

10:30 - 11:00 Coffee break

- 11:00 - 11:30 Temperature-based oxygen abundances in H II regions and planetary nebulae: methods and uncertainties (Mónica Rodríguez)
11:30 - 12:00 The reliability of atomic data used for oxygen abundance determinations (Claudio Mendoza)
12:00 - 12:30 Very deep spectroscopy of planetary nebula NGC7009 - The rich optical recombination spectrum and new effective recombination coefficients (Xuan Fang)

12:30 - 16:00 Lunch & beach

--> Chair: Mónica Rodríguez

- 16:00 - 16:30 Oxygen abundances in ionized nebulae from photoionization model-fitting (Christophe Morisset)
16:30 - 17:00 Temperature fluctuations in ionized nebulae and their effect on the oxygen abundance determination (Antonio Peimbert)
17:00 - 17:15 Oxygen abundances from optical OI and OII recombination lines in planetary nebulae with [WC] central stars (Jorge García-Rojas)
17:15 - 17:30 Effects of Herbig-Haro objects and ionization fronts on the oxygen abundance in the Orion Nebula (Adal Mesa-Delgado)

17:30 - 18:00 Coffee break

- 18:00 - 18:15 The oxygen abundance in protoplanetary disks embedded in HII regions (Yiannis Tsamis)
18:15 - 18:45 What can we learn about present-day oxygen abundances from the combined study of massive stars and HII regions? (Sergio Simón-Díaz)
18:45 - 19:00 Simulation of temperature fluctuations in HII regions (Roy Matadamas)
19:00 - 19:15 Resolving the electron temperature discrepancies in HII regions and planetary nebulae: kappa-distributed electrons (David Nicholls)
19:15 - 19:45 Strong-line methods for oxygen abundance determinations in giant HII regions and emission line galaxies: methods and uncertainties (Lisa Kewley – talk given by H. Jabran Zahid)

20:00 - 21:00 Buffet dinner at the hotel on the Kontiki terrace

- 21:00 - 22:00 **Discussion I:** How well do we need to know oxygen abundances? How important is an absolute scale? (led by Leticia Carigi)

Wednesday (16/05/2012)

--> Chair: Fabio Bresolin

- 9:00 - 9:15 Direct oxygen abundances for low luminosity LVL galaxies (Danielle Berg)
9:15 - 9:30 SDSS galaxies with double-peaked emission lines (Bernabé Cedrés-Exposito)
9:30 - 9:45 Oxygen in the far-IR: Mapping nearby galaxies with Herschel (Kevin Croxall)
9:45 - 10:00 Observational study of the ISM abundance of star formation regions in three nearby dIrr galaxies (Oleg Egorov)
10:00 - 10:15 Mapping the oxygen abundance in an elliptical galaxy (Jeremy Walsh)
10:15 - 10:30 Oxygen abundance from strong-line methods at extremely low metallicities (Ana Belén Morales-Luis)
10:30 - 10:45 Nitrogen-to-oxygen ratio as a solid tool to ascertain the chemical evolution of star forming galaxies (Enrique Pérez-Montero)
10:45 - 11:00 Abundance anomalies in blue compact dwarf galaxies (Eon-Chang Sung)

11:00 - 11:30 Coffee break

- 11:30 - 11:45 The CHemical Abundances Of Spirals (CHAOS) Project (Evan Skillman)
11:45 - 12:00 Galaxy And Mass Assembly (GAMA): A deeper view of the mass, metallicity, and SFR relationships (Maritza Arlene Lara-López)
12:00 - 12:15 Environmental imprint on galaxy chemical enrichment (José M. Vilchez)
12:15 - 12:45 Eliminating error in the chemical abundance scale for extragalactic H II regions (Ángel R. López-Sánchez)
12:45 - 13:15 The "counterpart" method for abundance determination in HII regions (Leonid Pilyugin)

13:30 - 21:00 Visit to the Teide national Park

21:00 - Free evening

Thursday (17/05/2012)

--> Chair: Anthony Jones

- 9:00 - 9:30 Measuring the oxygen abundance in the neutral ISM of star-forming galaxies at redshift $z=0$ (Alessandra Aloisi)
- 9:30 - 10:00 Oxygen abundance determination at high redshift from emission lines (Roberto Maiolino)
- 10:00 - 10:30 The oxygen abundances at high redshift from absorption lines (Miroslava Dessauges-Zavadsky)
- 10:30 - 11:00 Coffee break
- 11:00 - 11:30 The oxygen abundance from X-rays : methods and prospects (Kyoko Matsushita)
- 11:30 - 12:00 The abundance pattern of O, Ne, Mg, and Fe in the X-ray emitting interstellar medium of spiral and starburst galaxies (Saori Konami)
- 12:00 - 12:30 Oxygen-rich dust production in evolved stars (Lars Mattsson)
- 12:30-16:00 Lunch & beach

--> Chair: Katharina Lodders

- 16:00 - 16:30 Oxygen-rich dust processing and evolution in the interstellar medium (Anthony Jones)
- 16:30 - 16:45 The C/O ratio in the formation location of presolar X grains from supernova (Bruce Fegley)
- 16:45 - 17:00 Water Absorption in the Milky Way: Herschel/HIFI Insights on the History of the Gas (Nicolas Flagey)
- 17:00 - 17:30 The abundance of free oxygen atoms in the local ISM from absorption lines (Edward Jenkins)
- 17:30 - 18:00 Coffee break
- 18:00 - 18:30 Oxygen morphology and abundance in the interstellar medium through absorption line spectroscopy (Ciro Pinto)
- 18:30 - 19:00 Oxides in interstellar dust (Ulysses J. Sofia)
- 19:00 - 19:30 Stellar sources for O in the early Solar system (Josep Maria Trigo-Rodríguez)
- 20:00 - 21:00 Buffet dinner at the hotel on the Kontiki terrace
- 21:00 - 22:00 **Discussion II:** Tracking the biases: comparison of abundances in the same site from various indicators (led by Grażyna Stasińska)

Friday (18/05/2012)

--> Chair: César Esteban

- 9:00 - 9:15 Stellar Oxygen in M33 (Artemio Herrero)
- 9:15 - 9:30 The oxygen abundance determination in the IFU era (Fabián Rosales-Ortega)
- 9:30 - 9:45 Oxygen abundances in outer galaxy disks (Fabio Bresolin)
- 9:45 - 10:00 Oxygen distribution breaks at corotation radius in spiral galaxies (Sergio Scarano Jr.)
- 10:00 - 10:15 The Solar oxygen and the origin of the Sun (Leticia Carigi)
- 10:15 - 10:30 Chemical evolution models: IMF and nucleosynthesis stellar yields (Mercedes Mollá)
- 10:30 - 11:00 Coffee break
- 11:00 - 11:15 The abundances of oxygen, sulphur, neon, and argon in planetary nebulae: Constraints of nucleosynthesis and chemical evolution (Walter Maciel)
- 11:15 - 11:30 The MW Galaxy and M31 oxygen gradients using planetary nebulae as probes (Richard Henry)
- 11:30 - 11:45 The oxygen abundance gradients from planetary nebulae and HII regions (Miriam Peña)
- 11:45 - 12:15 Is oxygen well-mixed in the sites where it is observed? (William Henney)
- 12:15 - 12:45 A census of oxygen (H. Jabran Zahid)
- 12:45 - 14:30 Lunch (no beach!)
- 14:30 - 15:30 **Discussion III:** Oxygen abundance gradients in galaxies: are they well understood? (led by Richard Henry)
- 16:00 - 19:00 Transfer and guided tour to La Laguna
- 19:00 - 20:00 El oxígeno y la vida en el Universo (César Esteban): Public conference in the Museo de la Ciencia y el Cosmos de La Laguna
- 20:30 - 1:00 Conference dinner in La Cueva Caprichosa