Universidade do Vale do Paraíba

Instituto de Pesquisa e Desenvolvimento

IV WORKSHOP
"CHEMICAL ABUNDANCES IN GASEOUS NEBULAE: Multi-Scale Metals Throughout the Universe."

A workshop in honor to José Manuel Vílchez

MAY 2024
FROM 6TH TO 10TH

Program and Speakers

Honor Invited

José Manuel Vílchez

Reviewers

Anna Feltre
Polychronis Papaderos

Invited Speakers

Alex Cameron
Annalisa De Cia
Deanne Fisher
Enrique Pérez-Montero
José Eduardo Méndez Delgado
John Chisholm
Juan Fernández Ontiveros
Julia Roman-Duval
Karla Arellano-Córdova
Mirko Curti

Program

All events will be held at the Instituto de Pesquisa e Desenvolvimento (IP&D/UNIVAP), located at São José dos Campos, SP.
Honor and review talks are 30 minutes long, plus 10 additional minutes for questions.
Invited talks are 20 minutes long, plus 10 additional minutes for questions.
Contributed talks are 15 minutes long, plus 5 additional minutes for questions.

6 May		
9:00-9:30	Registration	
9:30-10:00	Welcome	
10:00-10:40	Honor talk: José M. Vilchez	Addressing Some Questions on Massive Star Formation and Chemical Abundances of Galaxies.
10:40-11:00	César Esteban	Evidences of density variations in HII regions and their effects on metallicity determinations
11:00-11:30	Coffee break	
11:30-12:00	Invited talk: Enrique Pérez-Montero	10 years of HII-CHI-mistry: Describing advances and clarifying misunderstandings
12:00-12:20	Ana Maria Hidalgo Gàmez	Chemical abundance of EELG
12:20-14:00	Lunch	
14:00-14:30	Invited talk: José Eduardo Méndez Delgado	The abundance discrepancy in HII regions: a temperature-related problem
14:30-14:50	Antonio Arroyo Polonio	Green Pea Galaxies seen with MUSE/VLT
14:50-15:10	Enrico Congiu	Unveiling the fountain: the MUSE view on the Sculptor
15:10-15:30	Macarena G. del Valle-Espinosa	Chemical structure of star-forming regions through the eyes of echelle spectroscopy
15:30-16:00	Coffee break	
16:00-17:00	Discussion Session - Chair: Pepe	

7 May		
9:00-9:30	Invited talk: Julia Roman-Duval	Probing the cosmic build-up of dust and metals with Hubble UV spectroscopy
9:30-9:50	Bethan James	Pinning down the multi-phase mixing of metals within star-forming galaxies
9:50-10:10	Zorayda Martinez	Investigating Sources of Uncertainty in C/O Abundances with CLASSY
10:10-10:30	Oleg Egorov	Mapping the ionization structure and chemical abundance of WR nebulae
10:30-10:50	Sandra Zamora	Star formation processes in the circumnuclear environment of galaxies
10:50-11:20	Coffee break	
11:20-11:40	Evan Skillman	The LBT Yp Project
11:40-12:00	Sophia Flury	Nitrogen Enrichment in an Expanding Shell in a Giant H II Region in M101
12:00-12:20	Amanda Lopes	HII galaxies in 12 photometric bands with S-PLUS
12:20-14:00	Lunch	
14:00-14:30	Invited talk: Annalisa De Cia	Metals in the neutral gas of galaxies
14:30-14:50	Brigitte Pruijt	NGC 5253: Peering into the massive star formation chemical enrichment at pc scales
14:50-15:10	Oscar Cavichia	The Milky Way disc radial abundance gradient from planetary nebulae revealed by Gaia
15:10-15:30	Jorge García-Rojas	MUSE observations of high abundance discrepancy planetary nebulae: when abundance discrepancies turn to be abundance contrasts between two different gas phases.
15:30-16:00	Coffee break	
16:00-17:00	Discussion Session - Chair: Evan	

8 May		
9:00-9:40	Review talk: Anna Feltre	Metal content of AGN: overview and challenges
9:40-10:00	Luc Binette	The recently confirmed problem of the gas temperature in active galactic nuclei
10:00-10:20	Mark Armah	Gas-phase metallicity in the narrow-line regions of Seyferts
10:20-10:40	Maddie Silcock	Characterising Type II AGN Across Cosmic Time with BEAGLE-AGN and JWST
10:40-11:10	Coffee break	
11:10-11:40	Invited talk: Juan Fernández Ontiveros	Diffuse Ionized Gas in Edge-on Galaxies
11:40-12:00	Borja Pérez-Díaz	Unveiling chemical enrichment in galaxies through infrared emission lines
12:00-12:20	**Poster Session:** Celso Benedito de Oliveira Junior Clara Rosin Gomes Claudia Marzari Cassanta Gabriele S. Ilha José Henrique Costa Pinto Souza Rogemar André Riffel Rogerio Riffel	2-3 minutes expositions
12:20-14:00	Lunch	
14:00-14:30	Invited talk: John Chisholm	The Nebular Structure of Epoch of Reionization-era Galaxies
14:30-14:50	Evgeniya Egorova	The chemical evolution of void galaxies
14:50-15:10	Ignacio del Moral-Castro	Extreme Emission-Line Galaxies in the MUSE Hubble Ultra Deep Field Survey
15:10-15:30	Matilde Mingozzi	The study of Interstellar Medium diagnostics in local galaxies to Interpret the Reionization-Era
15:30-16:00	Coffee break	
16:00-17:00	Discussion Session - Chair: Anna	

9 May		
9:00-9:30	Invited talk: Alex Cameron	Nitrogen-to-oxygen abundance ratios in the first 3 Gyr of galaxy evolution
9:30-9:50	Isaac Laseter	JADES: Detecting [OIII]λ4363 Emitters and Testing Strong Line Calibrations in the High-z Universe with Ultra-deep JWST/NIRSpec Spectroscopy up to z ~ 9.5
9:50-10:10	Danielle Berg	Observational Benchmarks of Chemical Evolution from Extreme Emission Line Galaxies
10:10-10:30	Nicholas Boardman	How Do Star Formation Histories Affect Gas Phase Abundances?
10:30-10:50	Igor Zinchenko	Galaxies with low gas-phase metallicity in the local Universe
10:50-11:20	Coffee break	
11:20-11:50	Invited talk: Karla Arellano Córdova	TBD
11:50-12:10	Ryan Sanders	Temperature-based gas-phase chemical abundance patterns of galaxies at Cosmic Noon from ultradeep JWST/NIRSpec observations
12:10-12:30	**Poster Session:** Antonio Giménez Alcázar Berhe Tewelde Teklhaimanot Douglas Alves da Silva Gabriel Luan Souza de Oliveira Janayna de Souza Mendes Lucimara Martins	2-3 minutes expositions
12:30-14:00	Lunch	
14:00-14:30	Invited talk: Mirko Curti	Chemical abundances in high-redshift galaxies as probed by JWST
14:30-14:50	Adarsh Ranjan	Probing the nature of neutral gas-rich galaxies in the early universe

14:50-15:10	Noah Rogers	The Chemical Enrichment of 2<z<3 Galaxies with CECILIA
15:10-15:30	Thomas Stanton	Evidence and Implications of enhanced O/Fe ratios in star-forming galaxies at cosmic noon
15:30-16:00	Coffee break	
16:00-17:00	Discussion Session - Chair: Karla	

10 May		
9:00-9:30	Invited talk: Deanne Fisher	TBD
9:30-9:50	Alessandro Marconi	Accurate metallicities of the ionized gas from low to high redshift with a new approach to photoionization modeling
9:50-10:10	Christophe Morisset	Toward more realistic models of galactic nebular emissions
10:10-10:30	F. Fabián Rosales-Ortega	New empirical metallicity calibrations based on the largest catalogue of high-quality Te-based literature data
10:30-10:50	Jillian Scudder	Conversions between metallicity calibrations in the nearby universe
10:50-11:20	Coffee break	
11:20-11:40	Vital Fernández	Applying machine learning tools for the analysis of complex and/or large spectroscopic data sets.
11:40-12:20	Review talk: Polychronis Papaderos	TBD
12:20-12:40	Closing session	