FINAL PROGRAMME
SPECTRAL FIDELITY
4 – 8 September 2023

Monday, 4 September – Afternoon	**Chair: N. Santos**	
13:45 – 14:00	Sofia Randich	Welcome
14:00 – 14:30	Michel Mayor / Francesco Pepe	From HARPS to ESPRESSO
14:30 – 15:00	Claire Moutou	SPIRou/CFHT: near-infrared spectro polarimetry and radial velocities of stars
15:00 – 15.15	Matteo Pinamonti	Erratic formation of sub-Neptunes in Cold-Jupiter systems: evidence from high-cadence RV surveys
15:15 – 15:45	João Faria	Stellar challenges in exoplanet search
15:45 – 16:15	Coffee Break	
16:15 – 16:30	Alessandro Sozzetti	The K2-3 Saga: Measuring the Density of a Habitable-Zone Super-Earth
16:30 – 16:45	Oscar Barragan	Uncovering Planetary Radial Velocity Signals with Spectral Activity Indicators
16:45 – 17:15	Ignas Snellen	Challenges in characterising exoplanet atmospheres with high-resolution spectroscopy
17:15 – 17:30	Lorenzo Pino	Frontiers in high spectral resolution optical emission spectroscopy of hot exoplanet atmospheres
17:30 – 17:45	Marina Lafarga Magro	Constraining the presence of water and clouds in the hot Neptune WASP-166 b with ESPRESSO

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Tuesday, 5 September – Morning	**Chair: F. Pepe**	
09:00 – 09:30	Michael Murphy	Testing the constancy of electromagnetism's strength with Dark Matter density using stellar twins
09:30 – 10:00	Jonay Gonzalez-Hernandez	Gravitational redshift determination in the Sun and other stars
10:00 – 10:30	Ewelina Obrzud	Advancements in Astrocombs for High-Fidelity Astronomical Spectroscopy
10:30 – 11:00	Coffee break	
11:00 – 11:30	Dinko Milakovic	Astronomical Laser Frequency Combs for Fundamental Physics and Cosmology
11:30 – 11:45	Tobias Schmidt	New Methods to Improve the Wavelength Calibration for ESPRESSO and ANDES
11:45 – 12:15	Nikolai Piskunov	Extraction of echelle spectra and spectral fidelity
12:15 – 12:30	Ansgar Reiners	Spectral fidelity benchmarks from solar spectroscopy with an FTS

Tuesday, 5 September – Afternoon	**Chair: M. Bergemann**	
14:00 – 14:30	Dainis Dravins	Spectral Fidelity: Opportunities, limitations, and future challenges
14:30 – 15:00	Paula Jofre	Gaia benchmark stars
15:00 – 15:15	Scarlet Elgueta	Infrared Insights into the CRIRES GBS sample
15:15 – 15:30	Ricardo Albarracin	Near-Infrared Spectroscopy of Mira Variables in 47 Tucanae
15:30 – 16:00	Coffee break	
16:00 – 16:30	Laura Magrini	Precise and accurate abundances in stars
16:30 – 16:45	Lorenzo Spina	Using spectra and machines to unveil the origin of stars
16:45 – 17:00	Jorge Melendez	Precision spectroscopy in stellar astrophysics, the star-planet connection and Galactic archaeology
17:00 – 17:15	Marilia Carlos	Detailed chemical composition of solar analogues with and without planets
17:15 – 17:30	Fan Liu	Characterization of Binary Stars in the Gaia Era: Chemical Signatures of Planet Engulfment

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Wednesday, 6 September – Morning	**Chair: S. Randich**	
09:00 – 09:30	Maria Bergemann	The chemical composition of the Sun
09:30 – 09:45	Francesca Lucertini	The spectroscopic challenges of Sulfur
09:45 – 10:00	Giada Casali	Exploiting the orthogonal constraints offered by high-precision ages and chemistry
10:00 – 10:15	Nadia Serebriakova	UVES/FEROS Large Programs: Unveiling Hidden Errors in the Modelling of Spectral Line Broadening
10.15–10.30	Alejandra Recio – Blanco	High precision space spectroscopy with Gaia RVS
10:30 – 10:45	Riano Escate Giribaldi	Titans metal-poor reference stars: first impacts on galactic archaeology
10:45 – 11:00	Anne Rathsam	Lithium depletion in solar analogs: age, mass and planet effects
11:00 – 11:30	Coffee break	
11:30 – 11:45	Ella Wang	Ending the second cosmological Li problem with ESPRESSO
11:45 – 12:15	Andrea Miglio	Spectral fidelity and asteroseismology
12:15 – 12:30	Sara Vitali	Calibrating chemical clocks for K2 UVES giants using accurate asteroseismic ages
12:30 – 12:45	Govid Nandakumar	M giants with IGRINS: Chemical characterisation of the inner Milky Way in the near infrared regime
12:45 – 13:00	Mathieu Van der Swaelmen	New multi-lined spectroscopic binaries in the Milky Way
13:00 – 13:15	Sophie Van Eck	Atomic isotopic ratio measurements

Wednesday afternoon: Free
Wednesday night: Conference dinner

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Thursday, 7 September – Morning	**Chair: L. Pasquini**	
09:00 – 09:30	Xavier Dumusque	Methods for ultra-precise radial-velocity computation
09:30 – 09:45	Jana Köhler	VIPER meets CRIRES+: Reaching 3 m/s in the NIR
09:45 – 10:15	Lily Zhao	Excalibur: Nonparametric, Hierarchical Wavelength Calibration
10:15 – 10:30	Thibault Merle	Melchiors: a new library of 2000 stars with high-spectral fidelity
10:30 – 11:00	Guido Cupani	Challenges in the spectral kitchen: Astrocook and beyond
11:00 – 11:30	Coffee break	
11:30 – 12:00	Etienne Artigau	Challenges in high-resolution near-infrared spectroscopy
12:00 – 12:15	Nuno Santos	PoET: the Paranal solar ESPRESSO Telescope
12:15 – 12:30	Casper Farret Jentink	NIGHT – a flexible, high-resolution spectrograph to survey the upper atmospheres of exoplanets
12:30 – 12:45	Jake Pember	The MARVEL Radial Velocity Facility at the Mercator Observatory

Thursday, 7 September – Afternoon	**Chair: J. Liske**	
14:15 – 14:45	Carlos Martins	Testing the standard model with QSO absorption lines
14:45 – 15:00	Catarina Marques	The Golden Sample for the cosmological redshift drift test
15:00 – 15:30	Louise Welsh	The metal-poor Universe: A perspective from near-pristine DLAs
15:30 – 15:45	Pavel Kislitsyn	A new precise determination of the primordial abundance of deuterium
15:45 – 16:00	Francesco Guarneri	A new measurement of the primordial deuterium abundance with ESPRESSO
16:00 – 16:30	Coffee break	
16:30 – 16:45	Sergei Balashev	ESPRESSO view on the cold and neutral gas in high-redshift galaxies
16:45 – 17:15	Annalisa De Cia	Abundances in the Interstellar and circumgalactic neutral medium
17:15 – 17:30	Christina Konstantinopoulou	Characterizing the chemical enrichment of the ISM from the Milky Way to z~6
17:30 – 17:45	Tanita Ramburuth-Hurt	Investigating chemical variations in the Milky Way's ISM with high-resolution spectra
21.00: Public conference by Michel Mayor at INAF-Osservatorio Astrofisico di Arcetri		

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Friday, 8 September – Morning Chair: N. Sanna		
09:00 – 09:30	Sven Buden	What we missed the most in surveys
09:30 – 10:00	Lala Casamiquela	Using Public Archives of High-Resolution Spectrographs
10:00–10:15	Silvano Desidera	Long period substellar objects from high precision RV timeseries: a legacy of stabilized instruments
10:15 – 10:30	Mario Damasso	"No pain, no gain": results from a long-term follow-up of young planetary systems
10:30 – 10:45	Gaspare Lo Curto	Cold Jupiters from the HARPS GTO follow-up program after ~ 20 years of monitoring campaigns
10:45 – 11:15	Coffee break	
11:15 – 11:45	Alessandro Marconi	ANDES, the high-resolution spectrograph for the ELT
11:45 – 12:45	Ernesto Oliva et al.	Round Table
Conference end		