

EXPANDING THE GAIA LEGACY

THE ROLE OF SPANISH GROUND-BASED FACILITIES

A celebration of the research career of Jordi Torra

Gaia-RIA workshop coordinated by the Red Española de Explotación Científica de Gaia
 Institut de Ciències del Cosmos (ICCUB), Barcelona, February, 17-19th 2020

Scientific programme

Monday, February 17th		
Section 1: From DR2 a DR3, the next Gaia release (chair: Emilio Alfaro)		
12:00 – 12:10	Welcome	Carme Jordi
12:10 – 12:30	Gaia: Past, Present and Future	Claus Fabricius
12:30 – 12:50	DR3 cross-match and the HPM sources	Ferran Torra
12:50 – 13:10	Gaia mean spectra: representation and calibration	Josep Manel Carrasco
13:10 – 13:30	Source classification and the physical parameters in DR3	Minia Manteiga
Lunch break		
Section 2: Solar system and multiple stellar systems (chair: Anna Ulla)		
15:00 – 15:25	Gaia and solar system data (invited talk)	René Duffard
15:25 – 15:50	Ground-based observations of asteroids to support Gaia data exploitation	Toni Santana Ros
15:50 – 16:15	Wide Binary and Multiple Systems of Bright Stars from Gaia-DR2 and the VO	Fran Jiménez-Esteban
Coffee break		
Section 3: Exoplanets and late type stars (chair: Ignasi Ribas)		
16:45 – 17:15	Searching nearby exoplanets for direct imaging (invited talk)	Guillem Anglada-Escudé
17:10 – 17:30	Photometric observations of exoplanet candidates from Montsec (invited talk)	Enrique Herrero
17:30 – 17:45	StePar/SteParSyn: two automatic codes to infer stellar atmospheric parameters	Hugo Tabernero
17:45 – 18:00	Stellar atmospheric parameters of FGKM-type stars from high-resolution optical and near-infrared CARMENES spectra	Emilio Marfil

18:00 – 18:15	Characterization of binary central stars of planetary nebulae detected by GALEX	Marco A. Gómez-Muñoz
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Tuesday, February 18th		
Section 4: <u>Stellar Physics I: The late type population</u> (chair: Francesca Figueras)		
9:00 – 9:30	The white dwarf population in the Gaia DR2 era (invited talk)	Santiago Torres
9:30 – 9:50	Implications of CAHA in Gaia (invited talk)	Jesús Aceituno
9:50 – 10:10	Propiedades de las estrellas centrales de nebulosas planetarias con distancias en Gaia DR2	Iker González-Santamaría
10:10 - 10:30	Synergies between OAJ's surveys, J-PAS & J-PLUS, and Gaia	Héctor Vázquez Ramió
Coffee break		
Section 5: <u>Synergies between Gaia, ESO and the large ESFRI projects</u> (chair: Fernando Comerón)		
11:00 – 11:25	CTA and its synergies with Gaia	Marc Ribó
11:25 – 11:50	Synergies between Gaia data, ground observations, and Machine learning algorithms	Héctor Cánovas
11:50 – 12:15	The use and potential of ESO facilities in connection with Gaia	Bruno Leibundgut
Section 6: <u>Acto de homenaje a Jordi Torra</u>		
12:20 – 14:30	Homenaje a Jordi Torra Apertura del acto Ponentes: <i>Jordi como Profesor e Investigador de la UB, Domènec Espriu, VR investigación de la UB</i> <i>Jordi como científico, Ferran Comerón (ESO)</i> <i>La astronomía Galáctica, de Hipparcos a Gaia, Xavier Luri (ICCUB-IEEC)</i> <i>La ley de Contaminación Lumínica y el COU, Salvador Ribas (COU)</i> Su participación en IEEC y el telescopio Joan Oró, Ignasi Ribas (ICE-IEEC) Presentación informe RIA " <u>Astronomía. Estudio de Prospectiva</u> ", Vicent Martínez (RIA) Cierre del acto y comida conjunta	
Section 7: <u>Galactic Archaeology I: disc, inner (bar, bulge) and outer disc</u> (chair: Sergio Simón-Díaz)		
15:00 – 15:20	Gaia and the GTC (invited talk)	Francisco Garzón

	EMIR & MIRADAS in the Gaia era: status and prospects	
15:20 – 15:40	The Nearest Massive Star Forming Region with Gaia and WEAVE: an exploration of Cygnus X	Artemio Herrero
15:40 – 16:00	Ejected thermonuclear-supernova survivors in Gaia	Roberto Raddi
16:00 – 16:15	Galactic Archeology with Gaia and APOGEE	Friedrich Anders
16:15 – 16:30	Characterising the Galactic warp with Gaia. Different approaches	Mercè Romero-Gómez
Coffee break		
Section 8: <u>New challenges: VO, data mining and archives</u> (chair: Fran Jiménez-Esteban)		
17:00 – 17:30	The Virtual Observatory. A way to facilitate the synergies between Gaia and the ground-based facilities (invited talk)	Enrique Solano
17:30 – 17:45	Widening Big data mining for astronomy (invited talk)	Roger Mor
17:45 – 18:00	GUASOM flavour DR3	Marco A. Álvarez González
18:00 – 18:15	Machine learning and Gaia DR2, on the hunt for open clusters	Alfred Castro
18:15 – 18:30	Photometric calibration of multi-filter surveys: J-PLUS and J-PAS synergies with Gaia	Carlos López-Sanjuan

Wednesday, February 19 th		
Section 9: <u>Next decade photometric, spectroscopic and dating techniques surveys</u> (chair: Jesús Maíz Apellániz)		
9:00 – 9:25	WEAVE and Gaia, the 6D phase space (invited talk)	María Monguió
9:25 – 9:50	Science with 4MOST (Invited talk)	Cristina Chiappini
9:50 – 10:15	The Gaia-LSST synergy: resolved stellar populations in selected Local Group stellar systems	Gisella Clementini
10:15 – 10:35	CHRONOS: towards a homogeneous age scale	David Barrado-Navascués
Coffee break		
Section 10: <u>Stellar Physics II: the young population</u> (chair: Amparo Marco)		
11:00 – 11:20	Synergies between Gaia and GALANTE	Jesús Maíz Apellániz
11:20 – 11:40	Young clusters in the Gaia era: laboratories for massive star evolution	Ignacio Negueruela
11:40 – 12:00	Galactic massive stars as seen by IACOB, Gaia and TESS	Sergio Simón Díaz
12:00 – 12:20	A high spectroscopic resolution study of massive supergiant stars in Per OB1	Abel de Burgos
Section 11: <u>Galactic Archeology II: halo, low metallicity population and dwarf satellites</u> (chair: Teresa Antoja)		
12:30 – 13:00	Stellar streams and other stellar substructures in the Milky	David Martínez-Delgado

	Way with Gaia and JPLUS (invited talk)	
13:00 - 13:20	Extremely iron-poor stars and the Early Galaxy in the context of Gaia	Jonay González-Hernández
13:20 - 13:40	Swimming on a stellar stream: re-discovering the Sagittarius tails with Gaia.	Pau Ramos
13:40- 14:00	Concluding remarks	Francesca Figueras