#### Star Clusters: the Gaia Revolution



### **Report of Contributions**

Contribution ID: 26 Type: not specified

# Three lessons the Gaia space mission has taught us about young stars

Tuesday, 5 October 2021 14:00 (30 minutes)

**Presenter:** GALLI, Philip

Session Classification: Young stars and star-forming regions

Contribution ID: 27 Type: not specified

# The Orion star formation complex - understanding the origin of young clusters

Tuesday, 5 October 2021 14:30 (15 minutes)

Presenter: GROSSCHELD, Josefa

**Session Classification:** Young stars and star-forming regions

Contribution ID: 28 Type: not specified

### The formation and evolution of stars: the Gaia revolution

Tuesday, 5 October 2021 14:45 (15 minutes)

Presenter: BECCARI, Giacomo

Session Classification: Young stars and star-forming regions

Contribution ID: 29 Type: not specified

### A dip in the past: the star formation history of young associations narrated by kinematics

Tuesday, 5 October 2021 15:00 (15 minutes)

Presenter: SQUICCIARINI, Vito

**Session Classification:** Young stars and star-forming regions

Contribution ID: 30 Type: not specified

#### Poster talk

Tuesday, 5 October 2021 15:30 (20 minutes)

Nadia Kaltcheva - Stellar Content of the GSH 224-01+24 /Seagull Nebula Region

Ingacio Mendigutia - Gaia EDR3 comparison of disk fractions from different spatial scales around young stellar clusters

Mate Szilagyi - The Gaia view of the Cepheus Flare

Henri Boffin - Filamentary star formation relic

Ronan Kerr - The SPYGLASS Project: Mapping Young Stellar Structures in the Solar Neighborhood

Alexis Quintana Isasi - Revisiting the Cygnus OB associations

Marusa Zerjal - Kinematic age and substructure of the Scorpius-Centaurus association

Session Classification: Young stars and star-forming regions

Contribution ID: 31 Type: not specified

# Do the majority of stars for in gravitationally bound clusters?

Tuesday, 5 October 2021 15:15 (15 minutes)

**Presenter:** DINNBIER, Frantisek

**Session Classification:** Young stars and star-forming regions

Contribution ID: 32 Type: not specified

#### Star Forming History Of The Solar Neighborhood

Tuesday, 5 October 2021 16:20 (30 minutes)

Presenter: KOUNKEL, Marina

Session Classification: Data mining in the Gaia catalogue

Contribution ID: 33 Type: not specified

# Automatic procedure for deriving open cluster metallicities

Tuesday, 5 October 2021 16:50 (15 minutes)

Presenter: PIECKA, Martin

Session Classification: Data mining in the Gaia catalogue

Contribution ID: 35 Type: not specified

#### Membership of Star clusters using Random Forest

Tuesday, 5 October 2021 17:20 (15 minutes)

Presenter: HASAN, Priya

Session Classification: Data mining in the Gaia catalogue

Contribution ID: 36 Type: not specified

#### A more complete and accurate open cluster census with Gaia EDR3

Tuesday, 5 October 2021 17:35 (15 minutes)

**Presenter:** HUNT, Emily

Session Classification: Data mining in the Gaia catalogue

Poster talk

Contribution ID: 37 Type: not specified

#### Poster talk

Tuesday, 5 October 2021 17:50 (20 minutes)

Lola Balaguer-Nuñez - Clusterix 2.0 for Gaia EDR3

Marwan Gebran - The use of Deep Learning in stellar classification

Sergey Sapozhnikov - Search for clusters and extended stellar structures using the clustering-of-pairs method

Becky Arnold - Quantifying kinematic structure in star forming regions and using it to diagnose their evolutionary histories

Danny Horta - The contribution of dissolved/evaporated globular clusters to the Galactic stellar halo

Tereza Jerabkova - Needles in a haystack: Searching for tidal tails of open star clusters

Lu Li - Dynamical interaction in the stellar cluster —Evidence from binaries of NGC 3532

Session Classification: Data mining in the Gaia catalogue

Contribution ID: 38 Type: not specified

# Testing stellar evolution in clusters using asteroseismology and Gaia

Wednesday, 6 October 2021 09:00 (30 minutes)

Presenter: MIGLIO, Andrea

Session Classification: Stellar evolution and aster seismology

Contribution ID: 39 Type: not specified

# Using Asteroseismology to Measure Masses of Evolved Stars in M4 to Study Stellar Evolution and Globular Cluster Formation

Wednesday, 6 October 2021 09:30 (15 minutes)

Presenter: HOWELL, Madeline

Session Classification: Stellar evolution and aster seismology

Contribution ID: 40 Type: not specified

# Constraining the chemical enrichment of M22 from AGB stars using magnesium isotopic ratios

Wednesday, 6 October 2021 09:45 (15 minutes)

Presenter: MCKENZIE, Madeleine

Session Classification: Stellar evolution and aster seismology

Contribution ID: 41 Type: not specified

### Precise asteroseismic ages from pulsating pre-main-sequence stars

Wednesday, 6 October 2021 10:00 (15 minutes)

**Presenter:** MURPHY, Simon

Session Classification: Stellar evolution and aster seismology

Contribution ID: 42 Type: not specified

# TESS asteroseismology and the search for Galactic chemical clocks

Wednesday, 6 October 2021 10:15 (15 minutes)

Presenter: BOULET, Thibault

Session Classification: Stellar evolution and aster seismology

Contribution ID: 43 Type: not specified

#### Poster talk

Wednesday, 6 October 2021 10:30 (20 minutes)

Ernst Paunzen - The star cluster research group at Masaryk University

Vinicius Branco - A grid of synthetic spectra for the study of multiple populations on globular clusters

Francisco Jose Galindo - Guil The impact of Gaia in Lithium Depletion Boundary ages

Vikrant Jadhav - Blue Straggler Stars in Open Clusters using Gaia: Macro properties and formation pathways

Elena Lacchin - The role of Type Ia supernova feedback on the second generation formation in globular clusters

Gustavo Medina - A study of Cepheids in open clusters in the Gaia eDR3 era

Long Wang - The impact of massive stars on the evolution of open star clusters and tidal tails

Session Classification: Stellar evolution and aster seismology

Contribution ID: 44 Type: **not specified** 

#### Dynamics of star clusters and streams

Wednesday, 6 October 2021 11:20 (30 minutes)

**Presenter:** VASILIEV, Eugene

Session Classification: Cluster dynamics

Contribution ID: 45 Type: not specified

# Studying the internal dynamics of globular clusters using Gaia

Wednesday, 6 October 2021 11:50 (15 minutes)

**Presenter:** BAUMGARDT, Holger

Session Classification: Cluster dynamics

Contribution ID: 46 Type: not specified

#### The complex lives of open clusters

Wednesday, 6 October 2021 12:05 (15 minutes)

Presenter: CARRERA, Ricardo

Session Classification: Cluster dynamics

Contribution ID: 47 Type: **not specified** 

#### **Extended Structure of Globular Clusters in Gaia**

Wednesday, 6 October 2021 12:20 (15 minutes)

Extended Structure of Globular Cl...

**Presenter:** KUZMA, Pete

Session Classification: Cluster dynamics

Contribution ID: 48 Type: **not specified** 

#### Collisional evolution of star clusters in molecular clouds

Wednesday, 6 October 2021 12:35 (15 minutes)

Presenter: FUJI, Michiko

Session Classification: Cluster dynamics

Contribution ID: 49 Type: not specified

#### Poster talk

Wednesday, 6 October 2021 12:50 (20 minutes)

Alexander Livernois - Early dynamical evolution of multi-mass rotating star clusters

Dana Kovaleva - The double star clusters system - Collinder 135 and UBC 7  $\,$ 

Khyati Malhan - The origin of the globular clusters NGC 5024, NGC 5053 and Pal $\sim$ 5\* inside the LMS-1 dwarf galaxy stream

Xiaoying Pang - Disruption of open clusters in the Galactic disk Nataliya Ramos Chernenko Gravitational Redshift in Open Clusters

Giuseppe Germano Sacco - The imprint of turbulence on the kinematics of young star clusters

Maria Tiongco - Early dynamical evolution of rotating star clusters

Session Classification: Cluster dynamics

Contribution ID: 50 Type: not specified

### Detailed open cluster chemistry from ground-based spectroscopy

Thursday, 7 October 2021 09:00 (30 minutes)

Presenter: CASAMIQUELA, Laia

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: 51 Type: not specified

#### **LAMOST meets Gaia: The Galactic Open Clusters**

Thursday, 7 October 2021 09:30 (15 minutes)

**Presenter:** FU, Xiaoting

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: **52** Type: **not specified** 

# The chemical composition of very young open clusters in the Solar neighbourhood

Thursday, 7 October 2021 09:45 (15 minutes)

Presenter: BARATELLA, Martina

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: 53 Type: not specified

### Detailed chemistry of thousands of Globular Custer stars from APOGEE

Thursday, 7 October 2021 10:00 (15 minutes)

Presenter: SCHIAVON, Ricardo

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: 54 Type: not specified

#### Homogeneous investigation of lithium in globular clusters

Thursday, 7 October 2021 10:15 (15 minutes)

Presenter: SANNA, Nicoletta

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: 55 Type: **not specified** 

#### Poster talk

Thursday, 7 October 2021 10:30 (20 minutes)

Marta Luthien Gutierrez - Calibrating the lithium-age relation and its dependence with rotation, activity and metallicity using open clusters and associations

Maria Tsantaki - Open cluster radial velocities by homogenizing ground-based spectroscopy and Gaia

Maria Tsantaki - Exploring Li-rich giants in 34 open clusters with Gaia and high resolution spectroscopy

Juan Carbajo-Hijarrubia - OCCASO, the largest homogenous sample of open clusters with precise chemical abundance determination

Tejpreet Kaur - Chemical evolution of the Milky Way galaxy Janez Kos Chemo-dynamical history of the young Solar neighbourhood

Clara Martinez-Vazquez - "Twinkle, Twinkle Little Stars" —The Importance of Finding RR Lyrae Stars in Ultra-Faint Dwarf Galaxies

Session Classification: Chemistry and synergies with ground-based surveys

Contribution ID: 56 Type: not specified

### Stellar clusters in the Milky Way under the lens of Gaia and its friends

Thursday, 7 October 2021 11:20 (30 minutes)

Presenter: BRAGAGLIA, Angela

Session Classification: Clusters as tracers of the Galactic structure and history

Contribution ID: 57 Type: not specified

# Galactic bar resonances inferred from kinematically hot stars and association with the local moving groups

Thursday, 7 October 2021 12:05 (15 minutes)

**Presenter:** KAWATA, Daisuke

Session Classification: Clusters as tracers of the Galactic structure and history

Contribution ID: 58 Type: not specified

#### Stellar Streams in the Galactic Disk

Thursday, 7 October 2021 12:20 (15 minutes)

Presenter: TING, Yuan-Sen

Session Classification: Clusters as tracers of the Galactic structure and history

Contribution ID: 59 Type: not specified

### Hidden in the haystack: low-luminosity globular clusters towards the Milky Way bulge

Thursday, 7 October 2021 11:50 (15 minutes)

Presenter: GRAN, Felipe

Session Classification: Clusters as tracers of the Galactic structure and history

Contribution ID: 60 Type: not specified

#### First Phase Space Portrait of Massive Clusters Hierarchical Assembly in the Milky Way

Thursday, 7 October 2021 12:35 (15 minutes)

**Presenter:** DALESSANDRO, Emanuele

Session Classification: Clusters as tracers of the Galactic structure and history

Contribution ID: 61 Type: not specified

#### Poster talk

Thursday, 7 October 2021 12:50 (20 minutes)

Hektor Monteiro - Updating the DAML02 catalog using Gaia data

Verena Furnkranz - Pearls on a String: Numerous Stellar Clusters Strung along the Same Orbit

Elisa Rita Garro - Physical characterization of recently discovered globular clusters in the Sagittarius dwarf spheroidal galaxy II. Metallicities, ages and luminosities

Andrew Pace - The Nature of the Fornax 6 Globular Cluster with Magellan/M2FS Spectroscopy

Carlos Roman-Zuñiga - The Perseus Anomaly: Expansion of Cluster Complexes

Lorenzo Spina - The radial metallicity gradient: achivements and future challenges

Khyati Malhan - A dwarf galaxy stream populating the inner Milky Way halo

**Session Classification:** Clusters as tracers of the Galactic structure and history