

# MONTHLY NEWSLETTER



## INAF Osservatorio Astrofisico di Arcetri

ISSUE 10, JUNE 2021

### HIGHLIGHT

#### **Teresa Fornaro wins the Marisa Bellisario Prize**

Teresa Fornaro, researcher at INAF-OAA, won the Marisa Bellisario Prize and was awarded the Mela d'oro of the 33rd edition of the prize for the "Germoglio d'Oro" category. On July 1, ahead of the award ceremony, President of the Italian Republic Sergio Mattarella received the winners at the Quirinale palace. The award ceremony will be broadcast on Rai 1 on July 17.

Link:

<https://www.fondazionebellisario.org/il-presidente-mattarella-incontra-le-mele-doro-del-33-premio-marisa-bellisario/>

Media INAF: <https://www.media.inaf.it/2021/06/23/teresa-fornaro-premio-bellisario>

<https://www.youtube.com/watch?v=2r0tUrRtR2E>



# REFEREED PUBLICATIONS

**S. Bianchi**

***Where was mean solar time first adopted?***

Journal of Astronomical History and Heritage (2021), 24, 2

<https://ui.adsabs.harvard.edu/abs/2021JAHH...24..337B/abstract>

**A. Dell'Oro, J. Boccenti., F. Spoto, P. Paolicchi., Z. Knezevic**

***The impact of physical processes on the estimation of the ages of asteroid families***

Monthly Notices of the Royal Astronomical Society, in press

**D. Fedele, C. Toci, L. Maud, G. Lodato**

***ALMA 870 μm continuum observations of HD 100546. Evidence of a giant planet on a wide orbit***

Astronomy and Astrophysics, in press

<https://arxiv.org/submit/3793146/view>

**F. Fontani, L. Colzi, E. Redaelli, O. Sipilä, P. Caselli**

***First survey of HCNH+ in high-mass star-forming cloud cores***

Astronomy and Astrophysics, in press

<https://arxiv.org/abs/2105.08732>

**L. Magrini, N. Lagarde, C. Charbonnel, E. Franciosini, S. Randich, R. Smiljanic, G. Casali, C. Viscasillas**

Vazquez, L. Spina, K. Biazzo, L. Pasquini, A. Bragaglia, **M. Van der Swaelmen**, G. Tautvaisiene, L. Inno, N. Sanna, L.

Prisinzano, S. Degl'Innocenti, P. Prada Moroni, **V. Roccataagliata**, E. Tognelli, L. Monaco, P. de Laverny, E.

Delgado-Mena, M. Baratella, V. D'Orazi, A. Vallenari, A. Gonneau, C. Worley, F. Jimenez-Estebaran, P. Jofre, T. Bensby, P.

Francois, G. Guiglion, A. Bayo, R. D. Jeffries, A. S. Binks, A. Korn, G. Gilmore, F. Damiani, **E. Pancino, G.G. Sacco**, A. Hourihane, L. Morbidelli, S. Zaggia

***The Gaia-ESO survey: Mixing processes in low-mass stars traced by lithium abundance in cluster and field stars***

Astronomy and Astrophysics, in press

<https://ui.adsabs.harvard.edu/abs/2021arXiv210504866M/abstract>

**M. Padovani, A. Bracco, V. Jelić, D. Galli, E. Bellomi**

***Spectral index of synchrotron emission: insights from the diffuse and magnetised interstellar medium***

Astronomy and Astrophysics, in press

<https://arxiv.org/abs/2106.10929>

**A. Skúladóttir, S. Salvadori, A.M. Amarsi, E. Tolstoy, M.J. Irwin, V. Hill, P. Jablonka, G. Battaglia, E. Starkenburg, D. Massari, A. Helmi, L. Posti**

***Zero-metallicity hypernova uncovered by an ultra metal-poor star in the Sculptor dwarf spheroidal galaxy***

ApJ Letter, in press

<https://ui.adsabs.harvard.edu/abs/2021arXiv210611592S/abstract>

J. Erkal, B. Nisini, D. Coffey, **F. Bacciotti**, P. Hartigan, S. Antoniucci, T. Giannini, J. Eisloeffel, C.F. Manara

***Probing jets from young embedded sources: clues from HST near-IR [Fe II] images***

The Astrophysical Journal, in press

<https://arxiv.org/pdf/2106.04414.pdf>

F. Galliano, A. Nersesian, **S. Bianchi**, I. De Looze, S. Roychowdhury, M. Baes, V. Casasola, L. P. Cassará, W. Dobbels, J. Fritz et al.

***A nearby galaxy perspective on dust evolution - Scaling relations and constraints on the dust build-up in galaxies with the DustPedia and DGS samples***

Astronomy & Astrophysics (2021), 649, A18

[https://www.aanda.org/articles/aa/full\\_html/2021/05/aa39701-20/aa39701-20.html](https://www.aanda.org/articles/aa/full_html/2021/05/aa39701-20/aa39701-20.html)

J. Szulágyi, **A. Garufi**

***Observability of Forming Planets and their Circumplanetary Disks III. -- Polarized Scattered Light***

Monthly Notices of the Royal Astronomical Society, in press

<https://arxiv.org/abs/1906.01416>

Ryan J. Rickards Vaught, Karin M. Sandstrom, **L.K. Hunt**

***Keck Cosmic Web Imager Observations of He II Emission in I Zw 18***

The Astrophysical Journal Letters (2021), 911, L2

<https://ui.adsabs.harvard.edu/abs/2021ApJ...911L..17R/abstract>

J. Sutter, D.A. Dale, K. Sandstrom, J. D.T. Smith, A. Bolatto, M. Boquien, D. Calzetti, K.V. Croxall, I. De Looze, M. Galametz, B.A. Groves, G. Helou, R. Herrera-Camus, **L.K. Hunt**, R.C. Kennicutt, E.W. Pelligrini, C. Wilson e M.G. Wolfire

***The case for thermalization as a contributor to the [C II] deficit***

Monthly Notices of the Royal Astronomical Society (2021), 503, L1

<https://ui.adsabs.harvard.edu/abs/2021MNRAS.503..911S/abstract>

D. Rigopoulou, M. Barale, D. C. Clary, X. Shan, A. Alonso-Herrero, I. García-Bernete, **L.K. Hunt**, B. Kerkeni, M. Pereira-Santalla, P. F. Roche

***The properties of polycyclic aromatic hydrocarbons in galaxies: constraints on PAH sizes, charge and radiation fields***

Monthly Notices of the Royal Astronomical Society (2021), 504, 4

<https://ui.adsabs.harvard.edu/abs/2021MNRAS.504.5287R/abstract>

C. Spinelli, C. Tortora, G. D'Ago, L. Coccato, F. La Barbera, A. Ferré-Mateu, N. R. Napolitano, M. Spavone, D. Scognamiglio, M. Arnaboldi, A. Gallazzi, **L. Hunt**, S. Moehler, M. Radovich, **S. Zibetti**

***INSPIRE: INvestigating Stellar Population In RElics - I. Survey presentation and pilot study***

Astronomy & Astrophysics (2021), 646, A28

<https://ui.adsabs.harvard.edu/abs/2021A%26A...646A..28S/abstract>

P. G. Sanhueza, M. Josep, **M. Padovani**, **D. Galli** et al.

***Gravity-driven Magnetic Field at 1000 au Scales in High-mass Star Formation***

The Astrophysical Journal Letters (2021), 915, L1

<https://ui.adsabs.harvard.edu/abs/2021arXiv210603866S/abstract>

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V.Vinogradoff, **G. Poggiali**, A. Raponi, M. Ciarniello, S. De Angelis, M. Ferrari, J. C. Castillo-Rogez, **J. Brucato**, M.-C. De Sanctis

**Laboratory Investigations Coupled to VIR/Dawn Observations to Quantify the Large Concentrations of Organic Matter on Ceres**

MDPI Minerals (2021), 11, 7

<https://doi.org/10.3390/min11070719>

S.M. Ferrone, B.E. Clark, H.H. Kaplan, J.-L. Rizos, X.-D. Zou, J.-Y. Li, M.A. Barucci, A.A. Simon, D. Reuter, P.H. Hasselmann, J.D.P. Deshpriya, **G. Poggiali**, **J.R. Brucato**, S. Cambioni, E. Cloutis, V.E. Hamilton, D.S. Lauretta

**Visible–near-infrared observations of organics and carbonates on (101955) Bennu: Classification method and search for surface context**

Icarus (2021), 368, 114579

<https://doi.org/10.1016/j.icarus.2021.114579>

## OTHER PUBLICATIONS

**M.Ciardi, A. Gasperini**

***Il pianoforte di Einstein. Vite e storie in bilico tra Firenze, Europa e America***

Ed. Hoepli, 2021

Media INAF:

[https://www.media.inaf.it/2021/05/06/lo-chiamano-il-pianoforte-di-einstein/?fbclid=IwAR1SUIjDZBuHAEY4a5zMOCjUxLiR-qIWjuL\\_N8jKPBkjcq44AM1mJI8WUv0](https://www.media.inaf.it/2021/05/06/lo-chiamano-il-pianoforte-di-einstein/?fbclid=IwAR1SUIjDZBuHAEY4a5zMOCjUxLiR-qIWjuL_N8jKPBkjcq44AM1mJI8WUv0)

## NEW ARRIVALS

### POSTDOCTORAL FELLOW

**Marina Vela Núñez**



I am a Computer System Engineer. My Master degree in Engineering in Intelligent Interaction Technologies (Award The Japanese Government Scholarship) at University Of Tsukuba, Tsukuba, Japan, was focused on “Autonomous mobile robot navigation in indoor environments”. My PhD (Scuola Superiore Sant'Anna (PERCRO Lab), Pisa, Italy.) was focused on developing several intelligent embedded real time sensor systems to HMR to augmented Virtual Reality experiences. In the last years I had collaborated with the INAF OAA and INAF OATs where I applied my computational knowledge on astronomy specially at the development of GUIs. For the monitoring and control of the CSP LMC Master devices framework of the SKA project. Recently I collaborated with the INAF OAA at the Space Technologies Group where my main task is to develop and test scientific instrumentation for the discovery and characterization of extrasolar planets from space (*PLATO & ARIEL* space missions).