



ALLA MAGNIFICA RETTRICE
DELL'UNIVERSITA' DEGLI STUDI DI MILANO

COD. ID: A046

Il sottoscritto chiede di essere ammesso a partecipare alla selezione pubblica, per titoli ed esami, per il conferimento di un assegno di ricerca presso il Dipartimento di
FISICA

Responsabile scientifico: PROF. PAOLO MILANI

ENRICO RAGUSA

CURRICULUM VITAE

INFORMAZIONI PERSONALI

Cognome	RAGUSA
Nome	ENRICO

OCCUPAZIONE ATTUALE

Incarico	Struttura
ASSEGNISTA (Marie Curie Fellow at Unimi)	Dipartimento di Fisica, Università degli Studi di Milano

ISTRUZIONE E FORMAZIONE

Titolo	Corso di studi	Università	anno conseguimento titolo
Dottorato Di Ricerca	Fisica, Astrofisica e Fisica applicata	Università degli Studi di Milano	2018
Diploma Di Specializzazione Medica			
Laurea Magistrale o equivalente	Fisica Generale	Università degli Studi di Milano	2015
Master			
Altro			

ISCRIZIONE AD ORDINI PROFESSIONALI

Data iscrizione	Ordine	Città



LINGUE STRANIERE CONOSCIUTE

lingue	livello di conoscenza
Inglese	Professional
Francese	Basic knowledge
Italian	Native speaker

PREMI, RICONOSCIMENTI E BORSE DI STUDIO

anno	Descrizione premio
2024	Funding for the project EM-BeHEMOTH. Funds: Linea 4, PSR, Unimi (16k€)
2023	Abilitazione Scientifica Nazionale, expiration: Oct 2034
2023	Marie Skłodowska-Curie Fellowship. Funds: MSCA (172 k€)

ATTIVITÀ DI FORMAZIONE O DI RICERCA

RESEARCH EXPERIENCE

Sep 2023 - Present -- Marie Skłodowska-Curie Fellow at University of Milan
Dipartimento di Fisica, Università degli Studi di Milano, Milan, Italy

Sep 2021 -- Aug 2023 -- Researcher (in ERC-CoG group: PODCAST)
Centre de Recherche Astrophysique de Lyon, ENS de Lyon, Lyon, France

Dec 2018 - Aug 2021 -- Researcher (in ERC-CoG group: BuildingPlanS)
School of Physics and Astronomy, University of Leicester, Leicester, UK

EDUCATION

2018 - PhD: "Dottorato in Fisica, Astrofisica e Fisica Applicata"
Dipartimento di Fisica, Università degli Studi di Milano, Milan, Italy

2015 - M.Sc.: "Laurea Magistrale in Fisica generale" (final grade 110/110 cum Laude)
Dipartimento di Fisica, Università degli Studi di Milano, Milan, Italy

2013 - B.Sc.: "Laurea triennale in Fisica Generale" (final grade 106/110)
Dipartimento di Fisica, Università degli Studi di Milano, Milan, Italy

LONG TERM ACADEMIC VISITS:

May 2024 - Jul 2024 (3 months) -- Visiting Scientist at European Southern Observatory (ESO), Garching, Germany

May 2016 - Jun 2016 (2 months) -- Visiting Scientist at Institute of Astronomy, University of Cambridge, UK

AREAS OF EXPERTISE:

Theory



- Accretion disc physics: Classic accretion disc theory; binary-discinteraction theory; dynamics of eccentric discs; celestial mechanics.
- Experience in both black hole binaries and protostellar systems.
- **Network:** part of ERC-CoG BuildingPlanS and ERC-CoG PODCAST groups focused on accretion disc discs dynamics.

Numerical hydrodynamics & radiative transfer

- Co-Developer of the Smoothed Particle Hydrodynamics (SPH) code PHANTOM (Price et al. [+Ragusa] 2018).
- Experience with both SPH codes (PHANTOM,SHAMROCK) and grid codes (FARGO3D).
- Experience with Monte Carlo methods for radiative transfer (RADMC3D and MCFOST).
- Co-PI of successful 3M CPU hours project on British supercomputer DiRAC.
- Network: Santa Barbara code comparison team (Duffel et al. [+Ragusa 2024]). Active member of the PHANTOM user/developer community. Collaboration with the ENS de Lyon on the realisation of the SPH exascale code SHAMROCK (David-Cleris & Laibe subm.).

Observations

- Basic training about ALMA dust continuum observations (DUSTBUSTERS Summer school I)
- Visualization tools: CARTA, ds9 (good usage, from manipulating synthetic observations)
- Experience in numerical modeling of observed sources (production of synthetic images from hydro simulations).
- Support as theorist Co-I in five ALMA and two VLT/ESPRESSO accepted proposals.
- **Network:** member of DUSTBUSTERS collaboration and AlmaTauri (Long et al.[+Ragusa] 2018, survey).

Participation to long term programs and summer schools

- May 2022: DUSTBUSTERS summer school, Palazzo Feltrinelli, Gargnano, Italy
- Mar - Apr 2022 (2 weeks): Invited to KITP program “Bridging the Gap: Accretion and Orbital Evolution in Stellar and Black Hole Binaries”, Kavli Institute for Theoretical Physics, Santa Barbara, USA
- Sep 2017: SAMCSS - Saint Andrews Monte Carlo Summer School, University of St. Andrews, Scotland. Summer School.

ATTIVITÀ PROGETTUALE

Anno	Progetto
2024	PSR, Linea 4 (16k€) Project: “EM-BeHEMOTH - ElectroMagnetic emission before Black Hole binary Mergers: Observations and Theory” Role: PI
2023	Marie Skłodowska-Curie Fellowship (172k€) Project: “ORBIT-D -Observing Binaries in Transition Discs” Role: PI



2020	<p>Computational time allocation: DiRAC Thematic Proposal 2020 (awarded 3M CPU hours)</p> <p>Project: “<i>Protoplanetary disc dynamics in multiple stellar systems</i>”</p> <p>Role: Co-PI (PI of 1.5M CPU hours), Co-Is: Richard Alexander, Allison Young</p>
2017-2024	<p>Accepted observational proposals as Co-I</p> <ol style="list-style-type: none">1. Alqubelat, H., et al. (including Ragusa, E.), 2024, “Hunting for close companions in the cavities of transition disks”, VLT/ESPRESSO, P114, [114.27MC]. + Followup in P115, [115.28DK].2. Manara, C.F. et al. (including Ragusa, E.), 2022, “Search for binary companions to explain the large cavities of transition disks”, ESPRESSO/VLT P110, [110.2483].3. Long, F. et al. (including Ragusa, E.), 2019, “A Closer Look at the Small Discs”, ALMA cycle 7, [2019.1.00607.S]4. Manara, C.F., et al. (including Ragusa, E.), 2018, “Born with siblings: will I ever get my own space?”, ALMA cycle 6, [2018.1.00771.S]5. Boehler, Y., et al. (including Ragusa, E.), 2018, “The origin of the ring in the disk around MWC480,” ALMA cycle 6, [not observed]6. Long, F., et al. (including Ragusa, E.), 2018, “Are Large Grains Trapped in Disk Rings?”, ALMA cycle 6, [2018.1.00614.S]7. Dipierro, G. et al. (including Ragusa, E.) 2017, “Resolving gravitationally-induced spirals in IRAS 16293 - 2422B Class 0 YSO”, ALMA cycle 5, [2017.1.01247.S]
2015-Present	<p>Co-developer of the SPH (Smoothed Particle Hydrodynamics) numerical hydrodynamics code PHANTOM (main developer: Prof. Daniel Price), available on GitHub (URL: https://github.com/danieljprice/phantom). I am a co-author of the code's reference paper: Price et al. [+Ragusa], 2018. My contributions to the code include writing setup routines, analysis tools, dump file modifications, log file scripts, and bug fixes in the code's master branch.</p> <p>Recently, I have been working on implementing setups for simulating eccentric discs and writing routines for their analysis. Additionally, I have been involved in performance comparisons of various codes (including PHANTOM) for simulating circumbinary discs as part of the “Santa Barbara Binary-Disk Code Comparison” collaboration (discussed below). My fork of the code, which includes branches for the simulation and analysis of eccentric discs and for developing setups and analyses for studying circumbinary discs as required by the code comparison, is publicly available on GitHub (URL: https://github.com/eragusa/phantom). Once the projects for which these branches are being developed are completed, these branches will, per collaboration policy, be incorporated into the master branch.</p>
2016 - 2018	<p>Collaboration with the ERC-funded research group DISCSIM (PI: Prof. Cathie Clarke) at the Institute of Astronomy (two-month on-site), Cambridge (UK). My stay in Cambridge was funded by DISCSIM. The aim of the collaboration was to study the evolution of planetary eccentricity during their formation around protostars. This collaboration resulted in the publication of the article Ragusa, E. et al., 2018, “Eccentricity evolution during planet-disc interaction”, MNRAS, 474, 4460.</p> <p>(Web page of the collaboration: https://cordis.europa.eu/project/id/341137)</p>
2017-Present	<p>Member of the AlmaTauri observational collaboration, led by Dr. Feng Long (University of Arizona), acting as a theoretical astrophysicist for data interpretation and modeling. This international collaboration was originally established to advance the ALMA large program “An unbiased survey of disk structures in Taurus” (Cycle 4, PI: Gregory Herczeg, ALMA proposal 2016.1.01164.S), a survey of protoplanetary systems that avoids bias toward the brightest sources (which are often prioritized in large surveys). I began contributing to this project in 2017, focusing on interpreting survey data. This collaboration has evolved into a fruitful and ongoing partnership where I serve as a theoretical astrophysicist for interpreting observational data through analytical models, numerical simulations of gas and dust</p>



	dynamics, Monte Carlo radiative transfer simulations, and creating synthetic images based on models. Within this collaboration, I have contributed to the writing of 3 accepted ALMA proposals (2 observed, Cycles 6 and 7) and 8 journal articles.
2018-2021	Member of the BuildingPlanS research group, funded by the European Research Council (consolidator grant, PI: Prof. Richard Alexander), based in Leicester (UK). My research at the University of Leicester was funded by this group. Research topic of the group: the architecture of exoplanetary systems. 2 journal articles published from the collaboration with group members. (Web page: https://cordis.europa.eu/project/id/681601)
2019-Present	Member of the DUSTBUSTERS collaboration (MSCA-RISE, ~€640K over 5 years). This international collaboration (with members in Italy, UK, France, USA, Australia, Chile) was established in 2018 to provide theoretical support for interpreting protoplanetary disc observations. Starting in 2019, the collaboration received a 5-year MSCA-RISE grant aimed at promoting researcher mobility among its member institutions and fostering knowledge exchange between theoretical and observational astrophysicists. In this collaboration, I serve as an expert on circumbinary disc dynamics, numerical simulations using the SPH code <i>Phantom</i> , and Monte Carlo radiative transfer. I have contributed to writing 3 accepted ESPRESSO/VLT proposal (P110, P114, P115), and 5 journal articles.
2021-2023	Member of the PODCAST research group, funded by the European Research Council (consolidator grant, PI: Prof. Guillaume Laibe), based in Lyon, France. My research at ENS Lyon has been funded by this group. Research topic of the group: dynamics of gas and dust in protoplanetary systems. 2 Journal articles published from the collaboration with group members. (Web page: https://cordis.europa.eu/project/id/864965)
2022-2024	Member of the international collaboration <i>The Santa Barbara Binary-Disk Code Comparison</i> , initiated during a meeting in Santa Barbara (USA), aimed at comparing the performance of various numerical hydrodynamics codes in simulating circumbinary discs. Within this collaboration, I serve as the lead for the <i>Phantom</i> code, for which I am a co-developer. The collaboration includes 13 researchers affiliated with institutions in the United States, Germany, Italy, France, Denmark, the United Kingdom, and China. Results have been recently published in Duffell et al. [+Ragusa] 2024.

TITOLARITÀ DI BREVETTI

Brevetto

CONGRESSI, CONVEGNI E SEMINARI

Data	Titolo	Sede
<u>INVITED CONTRIBUTIONS:</u>		
Jan 2025	Workshop: 'The formation and long-term evolution of circumbinary planetary systems across the HR diagram' Invited talk: 'Kinematic signatures of circumbinary discs'	Florence, Italy



Jun 2024	ESO Star and Planet Formation Seminar Invited seminar: 'The impact of binary companions on the evolution of protostellar discs'	ESO, Garching, Germany
Jan 2023	Stellar-MADE kickoff Meeting Invited review talk: 'Linking theory and observations in circum-protostellar-binary discs'	Villard-de-Lans, France
Nov 2022	Monday's department Seminar Invited seminar: 'The impact of companions on the dynamics of protostellar discs - The evolution of the disc eccentricity'	DAMTP, Cambridge, UK
Jun 2022	Clemson Summer Seminars Virtual invited seminar: 'Binary disc interaction theory – applications to protoplanetary systems and compact object binaries'	Clemson University (South Carolina), USA
Mar-April 2022	KITP program (3 weeks): 'Bridging the Gap: Accretion and Orbital Evolution in Stellar and Black Hole Binaries', Invited talk: 'IRAS 04158+2805 - a testbed for binary-disc interaction !/?'	Santa Barbara, USA
Dec 2021	Department Seminar Invited virtual seminar: 'Binary systems in gaseous environments – From compact object binaries to protoplanetary systems'	University of St. Andrews, UK
Dec 2020	Bicocca Astro Coffee Invited virtual seminar: 'The evolution of large cavities and disc eccentricity in circumbinary discs - implications for compact object binaries'	Milan, Italy
Oct 2017	YAGN2017 - Young Astronomers on Galactic Nuclei Invited talk: 'Non-axisymmetric features in circumbinary discs surrounding supermassive black holes'	CEECA-Teruel, Spain
Nov 2016	YAGN2016 - Young Astronomers on Galactic Nuclei Invited talk: 'Accretion in supermassive black hole binary systems'	Paris, France
CONTRIBUTED TALKS AND POSTERS		
Jul 2024	New heights in planet formation:	Garching, Germany



	Contributed talk 'Probing the eccentricity in protostellar discs - Modeling kinematics and morphologies'	
Jun 2024	EAS meeting: Poster: 'Probing the eccentricity in protostellar discs - Modeling kinematics and morphologies' (SOC member)	Padua, Italy
Jun 2023	Star@Lyon Contributed talk: 'On the observational appearance of eccentric protostellar discs'	Lyon, France
Apr 2023	Protostars & Planets VII (PPVII) Poster: 'On the observational appearance of eccentric protostellar discs'	Kyoto, Japan
Dec 2021	Milan Christmas workshop IV Contributed talk: 'Circumbinary and circumstellar discs around the eccentric binary IRAS 04158+2805 - a testbed for binary-disc interaction'	Milan, Italy
May 2021	Distorted Astrophysical Discs 2021 Virtual contributed talk: 'Eccentric circumbinary discs: when "eccentric" means conventional'	Cambridge, UK
Dec 2020	DUSTBUSTERS Mid-Term Meeting Virtual contributed talk: (live-streamed on YouTube): 'The evolution of large cavities and disc eccentricity in circumbinary discs'	Milan, Italy
Dec 2019	Milan Christmas workshop III Contributed talk: 'The evolution of accretion discs surrounding high mass-ratio binaries'	Milan, Italy
Jul 2019	Great barriers in planet formation: Contributed talk: 'Non-axisymmetric features in protoplanetary disks: Vortices or not vortices? The quest continues'	Palm Cove, Queensland, Australia
Jul 2019	Disc-ussions 2019: Workshop	Melbourne, Australia
May 2019	New horizons in planetary systems Poster: 'Non-axisymmetric features in protoplanetary disks: Vortices or not vortices? The quest continues'	Victoria (BC), Canada



Jun 2018	Protoplanetary discs seen through the eyes of next generation instruments Contributed talk: 'Eccentricity evolution during planet disc interaction'	Frascati, Italy
Mar 2018	Star and Planet Formation 2 Poster: 'Eccentricity evolution during planet disc interaction'	Oracle (AZ), USA
Dec 2017	Milan Christmas Workshop II Contributed talk: 'Evolution of eccentric structures in supermassive black hole binary systems' (SOC/LOC member)	Milan, Italy
Nov 2017	11th GAPS (Global Architecture of Planetary Systems) progress meeting Contributed talk: 'Eccentricity disc driven evolution'	Milan, Italy
Jun 2017	The formation and evolution of planets and their disks: Contributed talk: 'Secular evolution of planetary eccentricity'	MIAPP-Garching, Germany
May 2017	The disc migration issue: from protoplanets to supermassive black holes Contributed talk: 'Secular evolution of planetary eccentricity during migration'	IoA-Cambridge, UK
Jul 2016	EWASS2016 Contributed talk: 'Suppression of the accretion onto a supermassive black hole binary in thin discs'	Athens, Greece

PUBBLICAZIONI

Monografie
[titolo, città, editore, anno...]
[titolo, città, editore, anno...]
[titolo, città, editore, anno...]

Articoli su riviste: I have authored a total of 29 publications in A-rank journals that received a total of ~ 2000 citations . Among them, 6 first-author publications that have received a total of ~ 300 citations . h-index: 20. (source: ADS, Link to complete list).
As first author:



1. Ragusa, E. , Lynch, E., Laibe, G., Longarini, C., Ceppi, S., 2024, <i>Probing the eccentricity in protostellar discs -- Modeling kinematics and morphologies</i> , A&A, 686, 20
2. Ragusa, E. , Fasano, D., Toci, C., Duchêne, G. et al., 2021, <i>Circumbinary and circumstellar discs around the eccentric binary IRAS 04158+2805 – a testbed for binary-disc interaction</i> , MNRAS, 507, 1157
3. Ragusa, E. , Alexander, R., Calcino, J., Hirsh, K., Price, D. J., 2020, <i>The evolution of large cavities and disc eccentricity in circumbinary discs</i> , MNRAS, 499, 3362
4. Ragusa, E. , Rosotti, G., Teyssandier, J., Booth, R., Clarke, C. J., & Lodato, G., 2018, <i>Eccentricity evolution during planet-disc interaction</i> , MNRAS, 474, 4460
5. Ragusa, E. , Dipierro, G., Lodato, G., Laibe, G., & Price, D. J., 2017, <i>On the origin of horseshoes in transitional discs</i> , MNRAS, 464, 1449
6. Ragusa, E. , Lodato, G., & Price, D. J., 2016, <i>Suppression of the accretion rate in thin discs around binary black holes</i> , MNRAS, 460, 1243
As significant-contributing author:
7. Commerçon, B., Lovascio, F., Lynch, E., & Ragusa, E. , 2024, "Discs are born eccentric" A&A, 689, L9 Contribution: analysis of the evolution of the disc eccentricity; manuscript drafting.
8. Duffell, P. C., et al. (+ Ragusa, E.), 2024, "The Santa Barbara Binary-Disk Code Comparison", ApJ, 970, 24 Contribution: I have been responsible for the code PHANTOM: writing the numerical setup used; writing of the analysis routines for the diagnostics and formatting to the standardised output used; running the simulations; manuscript drafting.
9. Toci, C., et al. (+ Ragusa, E.), 2024, "Orbital dynamics in the GG Tau A system: investigating its enigmatic disc", A&A, 688, 16 Contribution: Analysis of the evolution of the cavity eccentricity; Manuscript drafting.
10. Nealon, R., Ragusa, E. , Gerosa, D., Rosotti, G., Barbieri, R., 2022, <i>The Bardeen-Petterson effect in accreting supermassive black-hole binaries: disc breaking and critical obliquity</i> , MNRAS, 509, 5608 Contribution: writing of the analysis routines; running and analysing half of the numerous simulations presented in the paper; figure production; manuscript drafting.
11. Veronesi, B., Ragusa, E. et al., 2020, <i>Is the gap in the DS Tau disc hiding a planet?</i> , MNRAS, 495, 1913 Contribution: Co-supervision of Benedetta Veronesi, at the time PhD student; manuscript drafting.
12. Lodato, G., Dipierro, G., Ragusa, E. et al., 2019 <i>The newborn planet population emerging from ring-like structures in discs</i> , MNRAS, 486, 453 Contribution: based on the idea I suggested in Long et al. (2018) to use a gap-width-to-planet-mass relation to infer planet masses responsible for the formation of gaps in ALMA observations; defining the gap-width-to-planet-mass relation to be used; Defining the analytical prescriptions to be used for determining the fate of planets (Sec. 3.1); manuscript drafting.
13. Liu, Y., Dipierro, G., Ragusa, E. et al., 2018, <i>Ring structure in the MWC 480 disk revealed by ALMA</i> , A&A, 622, A75 Contribution: running, analysing and post-processing the hydrodynamical simulations presented in the paper; figure production; manuscript drafting.
14. Ubeira Gabellini, M. G., Miotello, A., Facchini, S., Ragusa, E. , et al., 2019, <i>Modeling CQ Tauri protoplanetary disc</i> , MNRAS, 486, 4638 Contribution: running and analysing the hydrodynamical simulations presented in the paper; figure production; manuscript drafting.



15. Price, D. J. et al. (+Ragusa, E.), 2018, *Phantom: A smoothed particle hydrodynamics and magnetohydrodynamics code for astrophysics*, PASA, 35, e031

Contribution: code-release paper for PHANTOM of which I have been an active developer since 2015; I developed: setups with binaries, planets, and eccentric discs; analysis routines for the time evolution of disc and binary orbital properties (eccentricity, inclination, semi-major axis); routines and logs to monitor the accretion rate through the disc; dump modifying routines; equations of state; a few bug fixes; manuscript drafting.

16. Long, F., et al. (+Ragusa, E.), 2018, *Gaps and Rings in an ALMA survey of disks in the Taurus star-forming region*, ApJ, 869, 17 **Contribution:** Overview paper of the ALMATaurus survey. I suggested to use a gap-width-to-planet-mass relation to infer the masses of putative planets producing gap features, and creation of Fig. 10 (Lodato et al. 2019, is based on this idea); manuscript drafting.

Other Co-author publications:

17. Shi, Y., et al. (+Ragusa, E.), 2024, *Small and Large Dust Cavities in Disks around mid-M Stars in Taurus*, ApJ, 966, 21

18. Long, F., et al. (+Ragusa, E.), 2023, *A Large Double-ring Disk around the Taurus M Dwarf J04124068+2438157*, ApJ, 949, 27

19. Scardoni, C. E., et al. (+Ragusa, E.), 2022, *Inward and outward migration of massive planets: moving towards a stalling radius*, MNRAS, 514, 5478

20. Rota, A. A., et al. (+Ragusa, E.), 2022, *Observational constraints on disc sizes in protoplanetary discs in multiple systems in the Taurus region. II. Gas disc sizes*, A&A, 662, 24

21. Long, F. et al. (+Ragusa, E.), 2021, *The Architecture of the V892 Tau System: the Binary and its Circumbinary Disk*, ApJ, 915, 23

22. Van der Marel, N. et al. (+Ragusa, E.), 2021, *On the diversity of asymmetries in gapped protoplanetary disks*, AJ, 161, 27

23. Long, F. et al. (+Ragusa, E.), 2020, *Dual-Wavelength ALMA Observations of Dust Rings in Protoplanetary Disks*, ApJ, 898, 36

24. Hirsh, K. et al. (+Ragusa, E.), 2020, *On the cavity size in circumbinary discs*, MNRAS, 498, 2936

25. Calcino, J. et al. (+Ragusa, E.), 2019, *Vortex or eccentric disc cavity? Dust and gas in IRS 48*, MNRAS, 490, 2579

26. Long, F. et al. (+Ragusa, E.), 2019, *Compact Disks in a High-resolution ALMA Survey of Dust Structures in the Taurus Molecular Cloud*, ApJ, 882, 49

27. Manara, C. F. et al. (+Ragusa, E.), 2019, *Observational constraints on dust disk sizes in tidally truncated protoplanetary disks in multiple systems in the Taurus region*, A&A, 628, A95

28. Veronesi, B. et al. (+Ragusa, E.), 2019, *Multi-wavelength observations of protoplanetary discs as a proxy for the gas disc mass*, MNRAS, 489, 3758

29. Price, D. J., et al. (+Ragusa, E.), 2018, *On the spiral arms, cavity, shadows, fast radial flows, streamers and horseshoe in the HD142527 transition disc*, MNRAS, 477, 1270

Atti di convegni

1. Toci, C. et al. (+Ragusa, E.), 2021, *Exploring the dust ring in the circum-binary disc around GG Tau A*, 15th Europlanet Science Congress 2021, DOI: 10.5194/epsc2021-831

2. Veronesi, B., Ragusa, E., et al. 2020, *Is the DS Tau disc hiding a planet?*, 14th Europlanet Science Congress 2020, DOI:10.5194/epsc2020-398

3. Ragusa, E., 2018, *Protoplanetary disks seen through the eyes of new-generation high-resolution instruments*, DOI:10.5281/zenodo.1892254



4. Lodato, G., Veronesi, B., Ubeira Gabellini, M. G., **Ragusa, E.**, Franchini, A., Dipierro, G., Aly, H., Price, D. J. 2017, *Planet formation in the ALMA Era*, Toward a science campus in Milan, Springer International Publishing, DOI:10.1007/978-3-030-01629-6

ALTRE INFORMAZIONI

TEACHING

2018 - Present, Tutoring

- (Jan 2024) **Tutor at DUSTBUSTERS School II**, Lyon, France
- (Jul - Aug 2020) **Nuffield Future Researchers program supervisor** (A level students), Leicester, UK
- (Feb - Oct 2018) **Teaching assistant**, course: “general physics” at the chemistry department (**total 41h**), Milan, Italy.

2018-Present, Supervision

- (**PhD**) Hala Alqubelat, (2024), (in Alqubelat et al.[+**Ragusa**] in prep., 25% supervision, supervisor: Carlo Manara, ESO)
- (**PhD**) Benedetta Veronesi, (2020), (in Veronesi, **Ragusa** et al. 2020, 50% supervision, supervisor: G. Lodato, University of Milan)
- (**M.Sc.**) Andrea Omati, Oct 2018, thesis title: “**Eccentricity Evolution in accretion discs around black holes**”, Supervisor: Prof. Giuseppe Lodato, Co-supervisor: **Enrico Ragusa**.
- (**B.Sc.**) Marco Poletti, Apr 2024, thesis title: “**Stima della massa di un protopianeta attraverso metodi di machine learning**”, Supervisor: Prof. Giuseppe Lodato, Co-supervisor: **Enrico Ragusa**.
- (**B.Sc.**) Filippo Negrini, Dec 2023, thesis title: “**Studio del troncamento di dischi circumstellari: analisi della dipendenza dai parametri della binaria**”, Supervisor: Prof. Giovanni Rosotti, Co-supervisor: **Enrico Ragusa**.
- (**B.Sc.**) Daniele Fasano, Dic 2019, thesis title: “**Imaging of protostellar discs: the case of IRAS04158+2805**”, Supervisor: Giuseppe Lodato, Co-supervisors: **Enrico Ragusa**, Claudia Toci. **Published:** Ragusa, Fasano et al. (2021), MNRAS, 507, 1157
- (**B.Sc.**) Luca M. Pirovano, Oct 2018, thesis title: “**Numerical Simulations of Dust Migration in protostellar discs**”, Supervisor: Giuseppe Lodato, Co-supervisor: **Enrico Ragusa**.

DEPARTMENTAL SERVICES

Jan 2019 - Jun 2021, Organisation of department seminars (LOC, SOC), Leicester, UK

- Selecting and contacting the speakers to organise the weekly department seminars of the Leicester School of Physics and Astronomy. Organising the speakers stay, hosting them during their visit, chairing the discussion following the seminar, and organisation of the social dinner with the speaker and members of the staff.

Sep 2017 - Present, Peer-review

- **Journals:** Monthly Notices of the Royal Astronomical Society (MNRAS), Astrophysical Journal (ApJ), European Physical Journal (EPJ), Astronomical Journal (AJ), Astronomy & Astrophysics (A&A).
- **Computational proposals:** I acted as a reviewer for the allocation of computational resources for the following programs: DiRAC Resource Allocation Committee 16th Call (RAC16).

SOC/LOC member at conferences and workshops

- July 2024: EAS 2024, Special Session: “Stars, discs & planets: dynamics & evolution in multiple



systems", Padova, Italy (SOC)

- February 2019: Dust busters kick-off meeting, Milan, Italy (LOC)
- June 2018: Phantom European users workshop 2018, Milan, Italy (LOC)
- Dec 2017: Milan second Christmas Workshop, Milan, Italy (SOC/LOC)

OUTREACH

1. Sep 2024: **MeetMeTonight, Public talk**, "ORBIT-D: hunting for invisible binary stars!"
2. Jan 2022: **Protoplanet-Express**: collaboration with P. Universidad Católica de Chile (Santiago, Chile) development of videogame Protoplanet-Express (Prof. Jorge Cuadra) providing numerical simulations of the system IRAS 04158+2805.
3. Jul-Aug 2020: **Supervisor for the Nuffield Future Researcher**: Leicester, UK
4. Feb 2017: **Public talk**, "An introduction to ALMA observations: protoplanetary discs and other relevant radio sources", Università degli Studi di Milano, Milan, Italy
5. Nov 2015: **Public talk**, "Supermassive black holes: feeding and feedback - the basics", Università degli Studi di Milano, Milan, Italy
6. Apr 2012: **Talk in school**, "Cosa sono le onde?", Liceo Scientifico A. Einstein, Milan, Italy

Le dichiarazioni rese nel presente curriculum sono da ritenersi rilasciate ai sensi degli artt. 46 e 47 del DPR n. 445/2000.

Il presente curriculum, non contiene dati sensibili e dati giudiziari di cui all'art. 4, comma 1, lettere d) ed e) del D.Lgs. 30.6.2003 n. 196.

RICORDIAMO che i **curricula SARANNO RESI PUBBLICI sul sito di Ateneo** e pertanto si prega di non inserire dati sensibili e personali. Il presente modello è già precostruito per soddisfare la necessità di pubblicazione senza dati sensibili.

Si prega pertanto di **NON FIRMARE** il presente modello.

Luogo e data: MILANO , 09/01/2025