

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO
selezione pubblica per n. 1 posto/i di Ricercatore a tempo determinato in tenure track (RTT)
per il settore concorsuale 02/C1 - Astronomia, Astrofisica, Fisica della Terra e dei Pianeti,
settore scientifico-disciplinare FIS/05 - Astronomia e Astrofisica,
presso il Dipartimento di FISICA "ALDO PONTREMOLI",
(avviso bando pubblicato sulla G.U. n. 49 del 18/06/2024) Codice concorso 5579

Alessia Franchini
CURRICULUM VITAE

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI
AI FINI DELLA VALUTAZIONE.
LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	FRANCHINI
NOME	ALESSIA

TITOLI

TITOLO DI STUDIO

(indicare la Laurea conseguita inserendo tipologia e relativo punteggio, Ateneo, titolo della tesi, data di conseguimento, ecc.)

Physics M.A., Università degli Studi di Milano, Milan (IT), Title: "Lense-Thirring precession around supermassive black holes during Tidal Disruption Events", Project: Analytical modelling of Lense-Thirring precessing accretion discs formed from the tidal disruption of stars around supermassive black holes. Solution of differential equation describing the propagation of pressure waves inside the fluid disc using a 1D ring code with a leapfrog integration algorithm.
Degree date: 02/04/2014
Grade: 110/110 cum laude
Advisor: Prof. Giuseppe Lodato

Physics B.A., Università degli Studi di Milano, Milan (IT), Title: "Seasonal modulation of solar neutrino flux in the Borexino experiment", Project: Numerical simulations of the seasonal modulation of solar neutrinos flux in the Borexino experiment using the CERN developed ROOT software. Statistical analysis methods were used to post-process the simulations results.
Degree date: 15/12/2011
Grade: 104/110
Advisor: Prof. Emanuela Meroni
Co-advisor: Dr. Livia Ludhova

TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO
(inserire tipologia del titolo e relativo punteggio, Ateneo, titolo della tesi, data di conseguimento, ecc.)

Ph.D. in Physics, Astrophysics and Applied Physics at Università degli Studi di Milano, Milan (IT), Thesis Title: "Lense-Thirring effect in accreting black hole systems", Project: Study of relativistic precession in accretion discs around black holes with application to Tidal Disruption Events around supermassive

black holes and discs around stellar mass black holes in Low-Mass X-ray Binaries. Application of the theoretical model to observations of Quasi-Periodic Oscillations (QPOs) in Low-Mass X-Ray Binaries.
Defense date: 13/12/2017
Advisor: Prof. Giuseppe Lodato

CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI

(per ciascun contratto stipulato, inserire tipologia, università/ente, durata in anni / data di inizio e fine, ecc.)

01/12/2023 -- present
Senior Researcher, Institut für Astrophysik - Universität Zürich, Zürich (CH)

01/06/2020 -- 30/11/2023
Post-doctoral Fellow, Università degli Studi di Milano Bicocca, Milan (IT)

15/07/2019 -- 30/05/2020
Research & Development, Aresys srl, Milan (IT)

15/01/2018 -- 30/06/2019
Post-doctoral Fellow, University of Nevada Las Vegas, Las Vegas NV (USA)

ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO

(inserire tipologia dell'attività, periodo [gg/mm/aa inizio e fine], anno accademico, ateneo, denominazione del corso, numero ore/CFU, ecc.)

2024 Lecture on "Simulating Supermassive Black Hole Binaries", IPTA meeting, Università degli Studi di Milano-Bicocca

2023 Lecturer of "Accretion Disc Astrophysics", class for graduate students, Università degli Studi di Milano-Bicocca, 1 CFU

2023 Teaching Assistant for "Galaxies and Dynamics", class for 2nd year master students, main lecturer: Prof. Massimo Dotti, Università degli Studi di Milano-Bicocca, 8 CFU

DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO QUALIFICATI ISTITUTI ITALIANI O STRANIERI

(inserire tipologia dell'attività, anno/anno accademico, ente, periodo, impegno in termini orari, ecc.)

01/12/2023 -- present
Senior Researcher, Institut für Astrophysik - Universität Zürich, Zürich (CH) 42 hours per week

01/06/2020 -- 30/11/2023
Post-doctoral Fellow, Università degli Studi di Milano Bicocca, Milan (IT) 40 hours per week

15/01/2018 -- 30/06/2019
Post-doctoral Fellow, University of Nevada Las Vegas, Las Vegas NV (USA) 40 hours per week

Mar 2016 and Jan 2017
Internship, University of Leicester, Leicester (UK).
Work on analytical models of fluid dynamics and numerical Smoothed Particle Hydrodynamics 3D simulations to investigate the behaviour of gaseous accretion discs subjected to relativistic effects (warped discs).

Jan 2016-- Mar 2016
Internship, University of Oxford, Oxford (UK)
Data analysis of the *XTE* satellite data using a software developed for spectrum fitting.

DOCUMENTATA ATTIVITÀ IN CAMPO CLINICO

(indicare, data, durata, ruolo, ente presso il quale si è prestata attività assistenziale, ecc.)

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REALIZZAZIONE DI ATTIVITÀ PROGETTUALE

(indicare descrizione dell'attività, durata, eventuale ente a favore del quale è stata realizzata l'attività, ecc.)

2022-present: Kavli Institute for Theoretical Physics (KITP) code comparison collaboration on binary-disc interactions. The collaboration compares the outcome of circumbinary disc simulations across different numerical approaches. In particular, the aim is to understand the impact of a circumbinary disc onto a circular equal-mass binary in terms of orbital evolution. I am the captain of one of the numerical codes involved. We have an article that contains the first part of the project (Duffell et al. (2024) ApJ in press). 2020-present: as a member of the Laser Interferometer Space Antenna (LISA) Consortium, I am one of the coordinators of the Disk-IMRI code comparison project. This project has the aim of understanding the evolution of low mass objects (Intermediate Mass Ratio Inspirals or IMRIs) inside AGN discs where they migrate towards the central massive black hole. This is extremely important for LISA as IMRIs provide one of the main sources of gravitational waves in the LISA band. We are working on the draft of the first paper with the main results of this code comparison. 2020-present: as a member of the European Pulsar Timing Array (EPTA) Collaboration, I am working on the modelling of the gravitational waves background using Neural Networks. This approach allows us to sample the large parameter space more efficiently and to apply our model to the data in order to confirm a putative detection of a gravitational wave background. We have a published article on the neural network model (Bonetti, Franchini, Galuzzi and Sesana, 2024, A&A, 687, A42).

ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI CENTRI O GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI O PARTECIPAZIONE AGLI STESSI

(per ciascuna voce inserire tipologia di progetto, titolo del progetto, anno, durata, eventuale ente finanziatore e importo del finanziamento, ruolo, gruppo di ricerca, ecc.)

2023 co-Author of Lunar Gravitational Waves Antenna white paper 2022 Author of the chapter on Massive Black Hole Binaries evolution in gaseous environments in the Astrobook "Black Holes in the era of Gravitational Wave Astronomy" to be published by Elsevier 2022-present KITP code comparison collaboration on binary-disc interactions 2020-present Member of LISA Consortium - Coordinator of the Disk-IMRI code comparison project 2020-present Member of European Pulsar Timing Array (EPTA) Collaboration - Modelling of the gravitational waves background using Neural Networks

TITOLARITÀ DI BREVETTI

(per ciascun brevetto, inserire autori, titolo, tipologia [nazionale o internazionale], anno, numero brevetto, ecc.)

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ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI

(inserire titolo congresso/convegno, data, durata in giorni/ore, ente organizzatore, ecc.)

11/07/2024, Be/X-ray Binaries Outbursts, NA Phantom workshop, St. John's (NL, Canada) 09/07/2024, QPEs from EMRIs, Marcel Grossmann 17 Meeting, Pescara (IT) 01/07/2024, A multi-messenger view of the quest for massive black hole binaries, EAS 2024, Padova (IT)
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06/05/2024, Multi-planet disc interactions in binary systems, Lubow75, UNLV, Las Vegas (NV, USA)

26/04/2024, Can QPEs shed light on TDEs?, KITP TDE conference, Santa Barbara (CA, USA)

05/03/2024, Electromagnetic emission from gravitational wave sources, LGWA meeting online

15/02/2024, Electromagnetic emission from gravitational wave sources, SISSA, Trieste (IT)

13/09/2023, Pre-merger signatures of MBHBs in gaseous discs, LISA AstroWG meeting 2023, Milan (IT)

14/07/2023, Gas thermodynamics governing the evolution of binaries, EAS 2023, Krakov (PL)

20/06/2023, QPEs from EMRIs, Flares and Bursts in AGN, IAS Princeton (NJ, USA)

08/06/2023, QPEs from EMRIs, Meeting on GW physics, Trieste (IT)

24/01/2023, Massive Black Hole binaries evolution in gaseous discs, Slippery Slope conference, Sexten (IT)

07/12/2022, Are circumbinary discs friends or foes of massive black hole binary migration?, Unsolved Problems in Astrophysics, Jerusalem (IL)

17/10/2022, Massive Black Hole binaries evolution in gaseous discs, YAGN2022, San Sebastian (ES)

07/10/2022, Massive Black Hole binaries evolution in gaseous discs, University of Zurich, Zurich (CH)

01/07/2022, Disc eccentricity driving type I and type II outbursts in Be/X-ray Binaries, Clemson University, Clemson (SC, USA)

19/01/2022, Disc eccentricity driving type I and type II outbursts in Be/X-ray Binaries, University of Western Ontario (CA)

29/11/2021, The role of gas in massive black hole binaries evolution, DAMTP Cambridge (UK)

01/09/2021, Circumbinary disc self-gravity governing supermassive black hole mergers, YAGN2021, Copenhagen (DK)

29/06/2021, Circumbinary disc self-gravity governing supermassive black hole mergers, EAS2021, Leiden (NL)

28/09/2020, Disc eccentricity driving type I and type II outbursts in Be/X-ray binaries, University of Leicester (UK)

10/06/2019, Multi-planet disc interactions in binary systems, DDA Meeting, Boulder (CO,USA)

25/05/2018, Measuring black hole spins in TDEs, TAPIR seminar, Caltech, Los Angeles (CA,USA)

17/11/2016, Lense-Thirring precession in black hole systems, YAGN2016, Paris (FR)

19/10/2016, Lense-Thirring precession during tidal disruption events and in low mass X-ray binaries, 6th Nepal meeting, Kathmandu (NP)

08/07/2016 Lense-Thirring precession during tidal disruption events and in low mass X-ray binaries, EWASS2016, Athens (EL)

10/06/2016, Lense-Thirring precession in black hole systems, AstroGR, Benasque (ES)

23/09/2015, Lense-Thirring precession during tidal disruption events, CNOC-IX, Rome (IT)

14/09/2015, Lense-Thirring precession during tidal disruption events, ISSI Meeting, Bern (CH)

18/12/2014, Lense-Thirring precession during tidal disruption events around supermassive black holes, XMas Workshop, Milan (IT)

02/12/2014, Lense-Thirring precession during tidal disruption events, Swift10Years, Rome (IT)

CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA

(inserire nome e motivazione del premio, data, ente erogatore, ecc.)

Abilitazione Scientifica Nazionale per Professore di seconda fascia in Astronomia, Astrofisica, fisica della terra e dei pianeti 08/07/2024

Seal of Excellence of Marie Skłodowska-Curie Global Fellowship, Call: HORIZON-MSCA-2023-PF-01

XMM-Newton Proposal 094127

Seal of Excellence of Marie Skłodowska-Curie Global Fellowship, Call: HORIZON-MSCA-2022-PF-01

REM DDT Proposal 44907

CO-I of the CINECA proposal "Massive Black Hole binaries eccentricity evolution", 140k CPU hours, 2020

PI of the computational proposal "The role of circumbinary discs in massive black hole binaries coalescence and merger" at CINECA, 130k CPU hours, 2020

UniMi graduate research fellowship, 2014-2017

UniMi award for best students enrolled in Physics, 2010

POSSESSO DEL DIPLOMA DI SPECIALIZZAZIONE EUROPEA RICONOSCIUTO DA BOARD INTERNAZIONALI (relativamente a quei settori concorsuali nei quali è prevista)

(indicare ambito di conseguimento del diploma, data di conseguimento, ente che ha rilasciato il diploma, ecc.)

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TITOLI DI CUI ALL'ARTICOLO 24 COMMA 3 LETTERA A) E B) DELLA LEGGE 30 DICEMBRE 2010, N. 240

(indicare se contratto di tipologia A o B, Ateneo, data di decorrenza e fine contratto/periodo/durata in anni, ecc.)

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VISITE DI RICERCA SU INVITO

19/06/2023 -- 23/06/2023 Institute for Advanced Study, Princeton (NJ) USA
Meeting on Tidal Disruption Events and Quasi-Periodic Eruptions

28/03/2022 -- 15/04/2022 Kavli Institute for Theoretical Physics, Santa Barbara (CA) USA
Code comparison project within the "Bridging the Gap: Accretion and Orbital Evolution in Stellar and Black Hole Binaries" program

01/01/2017-- 15/02/2017 University of Leicester, Leicester (UK)
3D simulations of warped accretion discs

01/01/2016-- 30/03/2016 University of Oxford, Oxford (UK)
RXTE satellite spectroscopic data analysis using the xspec package

SUPERVISIONE STUDENTI

(PhD student, mentoring) Peng Peng, Peking University (2023-present)
(PhD student, co-supervisor) Fabiola Cocchiararo, Università degli Studi di Milano-Bicocca (2022-present)
(Master, co-supervision) Elena Goria, Università degli Studi di Milano-Bicocca (2024-present)
(Master, co-supervision) Fabiola Cocchiararo, Università degli Studi di Milano-Bicocca (2022)
(Master, co-supervision) Alessandra Prato, Università degli Studi di Milano-Bicocca (2021)
(PhD student, mentoring) Jeremy Smallwood, University of Nevada Las Vegas (2018-2019)
(PhD student, mentoring) Cheng Chen, University of Nevada Las Vegas (2018-2019)

ORGANIZZAZIONE CONFERENZE E WORKSHOPS

LOC and SOC of "Loss Cones in Como" meeting in Como (IT) February 6-8, 2024
SOC of SS2 "Gravitational Wave sources in wet environments" at EAS 2023 in Krakov, Poland, July 10, 2023
SOC of "IPTA meeting" in Port Douglas, Queensland, AUS, June 13-19, 2023
LOC and SOC of "EPTA spring meeting" in Milan, Italy, March 13-17, 2023
LOC and SOC of the "EMRI and Tidal Disruption Events" meeting in Como, Italy, September 5-7, 2022
SOC of the ISSI Meeting "There it spins" at ISSI, Bern, Switzerland, September 14-17, 2015
LOC and SOC of the "Milan Christmas Workshop", Università degli Studi di Milano, Milan, Italy, December 18-19, 2014

REFERAGGIO DI ARTICOLI SCIENTIFICI E PROPOSAL COMPUTAZIONALI

Astronomy & Astrophysics (A&A)
Monthly Notices of the Royal Astronomical Society (MNRAS)
Monthly Notices of the Royal Astronomical Society Letter (MNRAS-L)
Astrophysical Journal (ApJ)
Astrophysical Journal Letters (ApJL)
DiRAC computational proposals in UK facilities

DIVULGAZIONE SCIENTIFICA

Summer School for high school students in Bicocca
Open day "Primavera in Bicocca" for high school students
Interview and published article on the "La Repubblica":
newspaper https://www.repubblica.it/esteri/2019/02/11/news/cosi_abbiamo_ricostruito_l_identikit_dei_buchi_neri_-301064919/

RUOLI ACCADEMICI

2024-present Member of the International Pulsar Timing Array (IPTA) Diversity Equity and Inclusion committee
2022-2023 Rappresentante assegnisti di ricerca nel Dipartimento di Fisica G. Occhialini

PRODUZIONE SCIENTIFICA

PUBBLICAZIONI SCIENTIFICHE

(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

Franchini A., Prato A., Longarini C., Sesana A. (2024) The behavior of eccentric sub-pc massive black hole binaries embedded in massive discs. *ASTRONOMY & ASTROPHYSICS*, vol. 688, in press, doi: 10.48550/arXiv.2402.13039

Duffell P. C., Dittmann A. J., D'Orazio D. J., Franchini A., Kratter K. M., Penzlin A. B. T., Ragusa E., Siwek M., Tiede C., Wang H., Zrake J., Dempsey A. M., Haiman Z., Lupi A., Pirog M., Ryan G. (2024) The Santa Barbara Binary-Disk Code Comparison. *THE ASTROPHYSICAL JOURNAL* in press, doi: 10.48550/arXiv.2402.00938

Franchini A., Bonetti M., Lupi A., Sesana A. (2024) Emission signatures from sub-parsec post-Newtonian binaries embedded in circumbinary discs. *ASTRONOMY & ASTROPHYSICS*, vol. 686, A288, doi: 0.1051/0004-6361/202449206

Chakraborty J., Arcodia R., Kara E., Miniutti G., Giustini M., Tetarenko A. J., Rhodes L., Franchini A., Bonetti M., Burdge K. B., Goodwin A. J., Maccarone T. J., Merloni A., Ponti G., Remillard R. A., Saxton R. D. (2024) Testing EMRI Models for Quasi-periodic Eruptions with 3.5 yr of Monitoring eRO-QPE1. *THE ASTROPHYSICAL JOURNAL*, vol. 965, 12, doi: 10.3847/1538-4357/ad2941

Bonetti M., Franchini A., Galuzzi B. G., Sesana S. (2024) Neural networks unveiling the properties of gravitational wave background from supermassive black hole binaries. *ASTRONOMY & ASTROPHYSICS*, vol. 687, A42, doi: 10.1051/0004-6361/202348433

IPTA collaboration, including Franchini A. (2024) Comparing Recent Pulsar Timing Array Results on the Nanohertz Stochastic Gravitational-wave Background. *THE ASTROPHYSICAL JOURNAL*, vol. 966, 105A, doi: 10.3847/1538-4357/ad36be

EPTA collaboration, including Franchini A. (2024) The second data release from the European Pulsar Timing Array V. Search for continuous gravitational wave signals. *ASTRONOMY & ASTROPHYSICS* in press

EPTA collaboration, including Franchini A. (2023) Second Data Release from the European Pulsar Timing Array: Challenging the Ultralight Dark Matter Paradigm. *PHYSICAL REVIEW LETTERS*, vol. 131, 171001, ISSN: 0031-9007, doi: 10.1103/PhysRevLett.131.171001

EPTA collaboration, including Franchini A. (2023). Practical approaches to analyzing PTA data: Cosmic strings with six pulsars. *PHYSICAL REVIEW D*, vol. 108, 123527, ISSN: 2470-0029, doi: 10.1103/PhysRevD.108.123527

EPTA collaboration, including Franchini A. (2024) The second data release from the European Pulsar Timing Array. IV. Implications for massive black holes, dark matter, and the early Universe. *ASTRONOMY & ASTROPHYSICS*, vol. 685, A94, ISSN: 0004-6361, doi: 10.1051/0004-6361/202347433

EPTA collaboration, including Franchini A. (2023) The second data release from the European Pulsar Timing Array. II. Customised pulsar noise models for spatially correlated gravitational waves. *ASTRONOMY & ASTROPHYSICS*, vol. 678, A49, ISSN: 0004-6361, doi: 10.1051/0004-6361/202346842

EPTA collaboration, including Franchini A. (2023). The second data release from the European Pulsar Timing Array. III. Search for gravitational wave signals. *ASTRONOMY & ASTROPHYSICS*, vol. 678, A50, ISSN: 0004-6361, doi: 10.1051/0004-6361/202346844

EPTA collaboration, including Franchini A. (2023). The second data release from the European Pulsar Timing Array: I. The dataset and timing analysis. *ASTRONOMY & ASTROPHYSICS*, vol. 678, A48, ISSN: 0004-6361, doi: 10.1051/0004-6361/202346841

LISA collaboration, including Franchini A. (2023). Astrophysics with the Laser Interferometer Space Antenna . *LIVING REVIEWS IN RELATIVITY*, ISSN: 2367-3613, doi: 10.1007/s41114-022-00041-y

Dotti M., Bonetti M., Rigamonti F., Bortolas E., Fossati M., Decarli R., Covino S., Lupi A., Franchini A., Sesana A., Calderone G. (2023). Optical follow-up of the tick-tock massive black hole binary

candidate. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 518, p. 4172-4179, ISSN: 0035-8711, doi: 10.1093/mnras/stac3344

Franchini A., Bonetti M., Lupi A., Miniutti G., Bortolas E., Giustini M., Dotti M., Sesana A., Arcodia R., Ryu T. (2023). Quasi-periodic eruptions from impacts between the secondary and a rigidly precessing accretion disc in an extreme mass-ratio inspiral system. ASTRONOMY & ASTROPHYSICS, vol. 675, p. 1-11, ISSN: 0004-6361, doi: 10.1051/0004-6361/202346565

Franchini A., Lupi A., Sesana A., Haiman Z. (2023). The importance of live binary evolution in numerical simulations of binaries embedded in circumbinary discs. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 522, p. 1569-1574, ISSN: 0035-8711, doi: 10.1093/mnras/stad1070

Franchini A., Lupi A., Sesana A. (2022). Resolving Massive Black Hole Binary Evolution via Adaptive Particle Splitting. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 929, L13, ISSN: 2041-8205, doi: 10.3847/2041-8213/ac63a2

Franchini A., Sesana A., Dotti M. (2021). Circumbinary disc self-gravity governing supermassive black hole binary mergers. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 507, p. 1458-1467, ISSN: 0035-8711, doi: 10.1093/mnras/stab2234

Bortolas E., Franchini A., Bonetti M., Sesana A. (2021). The Competing Effect of Gas and Stars in the Evolution of Massive Black Hole Binaries. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 918, L15, ISSN: 2041-8205, doi: 10.3847/2041-8213/ac1c0c

Franchini A., Martin R. G. (2021). Eccentric Neutron Star Disk Driven Type II Outburst Pairs in Be/X-ray Binaries. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 923, L18, ISSN: 2041-8205, doi: 10.3847/2041-8213/ac4029

Martin R. G., Franchini A. (2021). Nonperiodic Type i Be/X-Ray Binary Outbursts. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 922, L37, ISSN: 2041-8205, doi: 10.3847/2041-8213/ac3a05

Franchini A., Martin R. G., Lubow S. H. (2020). Multiplanet disc interactions in binary systems. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 491, p. 5351-5360, ISSN: 0035-8711, doi: 10.1093/mnras/stz3175

Smallwood J. L., Franchini A., Chen C., Becerril E., Lubow S. H., Yang C. -C., Martin R. G. (2020). Formation of the polar debris disc around 99 Herculis. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 494, p. 487-499, ISSN: 0035-8711, doi: 10.1093/mnras/staa654

Franchini A., Lubow S. H., Martin R. G. (2019). Circumbinary Disk Inner Radius as a Diagnostic for Disk-Binary Misalignment. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 880, L18, ISSN: 2041-8205, doi: 10.3847/2041-8213/ab2fd8

Smallwood J. L., Lubow S. H., Franchini A., Martin R. G. (2019). Alignment of a circumbinary disc around an eccentric binary with application to KH 15D. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 486, p. 2919-2932, ISSN: 0035-8711, doi: 10.1093/mnras/stz994

Martin R. G., Lubow S. H., Pringle J. E., Franchini A., Zhu Z., Lepp S., Nealon R., Nixon C. J., Vallet D. (2019). Generalized Warped Disk Equations. THE ASTROPHYSICAL JOURNAL, vol. 875, 5, ISSN: 0004-637X, doi: 10.3847/1538-4357/ab0bb7

Martin R. G., Franchini A. (2019). The frequency of Kozai-Lidov disc oscillation driven giant outbursts in Be/X-ray binaries. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 489, p. 1797-1804, ISSN: 0035-8711, doi: 10.1093/mnras/stz2250

Franchini A., Martin R. G. (2019). Type i Outbursts in Low-eccentricity Be/X-Ray Binaries. THE ASTROPHYSICAL JOURNAL LETTERS, vol. 881, L32, ISSN: 2041-8205, doi: 10.3847/2041-8213/ab3920

Pasham D. R., Remillard R. A., Chris Fragile P., Franchini A., Stone N. C., Lodato G., Homan J., Chakrabarty D., Baganoff F. K., Steiner J. F., Coughlin E. R., Pasham N. R. (2019). A loud

quasi-periodic oscillation after a star is disrupted by a massive black hole. SCIENCE, vol. 363, p. 531-534, ISSN: 0036- 8075, doi: 10.1126/science.aar7480

Chen C., Franchini A., Lubow S. H., Martin R. G. (2019). Orbital dynamics of circumbinary planets. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 490, p. 5634-5646, ISSN: 0035-8711, doi: 10.1093/mnras/stz2948

Franchini A., Martin R. G., Lubow S. H. (2019). Misaligned accretion disc formation via Kozai-Lidov oscillations. MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY, vol. 485, p. 315-325, ISSN: 0035-8711, doi: 10.1093/mnras/stz424

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Data

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