



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type A post-doc fellowship

Vardan Elbakyan

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Elbakyan
Name	Vardan
Date of birth	13/01/1991

PRESENT OCCUPATION

Appointment	Structure
University of Leicester	Research Associate in Theoretical Astrophysics

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
Bachelor	Physics	Yerevan State University, Armenia	2011
Master	Astrophysics	Southern Federal University, Russia	2013
PhD	Astrophysics	Southern Federal University, Russia	2017

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
2012	Armenian Astronomical Society (ArAS)	
2019	Euroasian Astronomical Society	
2019	International Astronomical Union (IAU)	



FOREIGN LANGUAGES

Languages	level of knowledge
English	fluent
Russian	fluent
Armenian	native

AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2015	Ernst Mach PhD scholarship from the Austrian Academic Exchange Service (OeAD) for the project “Numerical simulations of protostars and protostellar discs”
2018	Ernst Mach Postdoctoral scholarship from the Austrian Academic Exchange Service (OeAD) for the project “The early evolution of young accreting stars with different metallicities”
2019	Visby scholarship from The Swedish Institute (SI) for the project “The evolution of gaseous and dusty circumstellar disks at the early stages of planet formation”

TRAINING OR RESEARCH ACTIVITY

• Lund Observatory, Lund University Lund, Sweden Visiting Postdoctoral Fellow (Host: Prof. Anders Johansen)	Mar. 2019 - Jun. 2020
• Institute of Astrophysics, University of Vienna Vienna, Austria Visiting Postdoctoral Fellow (Host: Prof. Manuel Güdel)	Mar. 2018 - Aug. 2018
• Department of Physics and Astronomy, University of Kyoto Kyoto, Japan Visiting Research Fellow (Host: Prof. Takashi Hosokawa)	Sep. 2016
• Institute of Astrophysics, University of Vienna Vienna, Austria Visiting Research Fellow (Host: Prof. Manuel Güdel)	Oct. 2015 - Feb. 2016
• Department of Astrophysics, University of Exeter Exeter, UK Visiting PhD Student (Host: Prof. Isabelle Baraffe)	Sep. 2014

CONGRESSES AND SEMINARS

Date	Title	Place
Sep. 2022	Planet and binary formation in gravitationally unstable protoplanetary discs in the high-resolution era	University of Leicester, Leicester, UK
Aug. 2022	NCTS-ASIAA Workshop - Stars, Planets, and Formosa (Online)	NTU, Taipei, Taiwan
Aug. 2022	IAU GA 2022 - Division G Meeting (Online)	BEXCO, Busan, Republic of Korea
Jan. 2022	Modelling of Disc Fragmentation, Planet Migration and Episodic Accretion (invited)	University of Leicester, Leicester, UK
Oct. 2021	“STAR FORMATION: FROM CLOUDS TO DISCS”	Dublin Institute for Advanced Studies, Dublin, Ireland
Nov. 2020	Astrophysical seminar	Konkoly Observatory, Hungary
Jun. 2019	“From Stars to Planets II”	Chalmers University of Technology,



		Gothenburg, Sweden
Aug. 2018	IAU Symposium 345: "Origins: From the Protosun to the First Steps of Life"	University of Vienna, Vienna, Austria

PUBLICATIONS

Articles in journals

24 publications in peer-reviewed international journals (Scopus/WoS), 6 as the first author, 17 as either the 2nd or 3rd author, with a total of 340 citations (Dec 2022). H-index: 12.

2023

1. Vorobyov, Eduard I.; Elbakyan, Vardan G.; Johansen, Anders; Skliarevskii, Alexandr M., Stoyanovskaya, Olga P., "Formation of pebbles in (gravito-)viscous protoplanetary disks with various turbulent strengths", 2023, A&A, arXiv: 2212.01023
2. Elbakyan, Vardan G.; Nayakshin, Sergei; Meyer, Dominique M. -A.; Vorobyov, Eduard I., "Episodic accretion and mergers during growth of massive protostars", 2023, MNRAS, 518, 791

2022

3. Meyer, D. M. -A.; Vorobyov, E. I.; Elbakyan, V. G.; Kraus, S.; Liu, S. -Y.; Nayakshin, S.; Sobolev, A. M., "The burst mode of accretion in massive star formation with stellar inertia", 2022, MNRAS, 517, 4795
4. Elbakyan, Vardan; Wu, Yin hao; Nayakshin, Sergei; Rosotti, Giovanni, "Gap opening by planets in discs with magnetised winds", 2022, MNRAS, 515, 3113
5. Nayakshin, Sergei; Elbakyan, Vardan; Rosotti, Giovanni, "ALMA constraints on assembly of core accretion planets", 2022, MNRAS, 512, 6038

2021

6. Liu, Hanyu Baobab; Tsai, An-Li; Chen, Wen Ping; Liu, Jin Zhong; Zhang, Xuan; Ma, Shuo; Elbakyan, Vardan; Green, Joel D.; Hales, Antonio S.; Liu, Sheng-Yuan; Takami, Michihiro; Pérez, Sebastián; Vorobyov, Eduard I.; Yang, Yao-Lun, "Millimeter-sized Dust Grains Surviving the Water-sublimating Temperature in the Inner 10 au of the FU Ori Disk", 2021, ApJ, 923, 270
7. Elbakyan, Vardan G.; Nayakshin, Sergei; Vorobyov, Eduard I.; Caratti o Garatti, Alessio; Eislöffel, Jochen, "Accretion bursts in high-mass protostars: A new test bed for models of episodic accretion", 2021, A&AL, 651, 3
8. Vorobyov, Eduard I.; Elbakyan, Vardan G.; Liu, Hanyu Baobab; Takami, Michihiro, "Distinguishing between different mechanisms of FU-Orionis-type luminosity outbursts", 2021, A&A, 647, 44
9. Meyer, D. M. -A.; Vorobyov, E. I.; Elbakyan, V. G.; Eislöffel, J.; Sobolev, A. M.; Stöhr, M., "Parameter study for the burst mode of accretion in massive star formation", 2021, MNRAS, 500, 4448

2020

10. Vorobyov, Eduard I.; Elbakyan, Vardan G.; Takami, Michihiro; Liu, Hanyu B., "Effect of luminosity outbursts on protoplanetary disk dynamics", 2020, A&A, 643, 13
11. Kulikov, Igor; Vorobyov, Eduard; Chernykh, Igor; Elbakyan, Vardan, "Hydrodynamic modeling of selfgravitating astrophysical objects on tetrahedral meshes", 2020, JPhCS, 1640
12. Vorobyov, Eduard I.; Elbakyan, Vardan G.; Omukai, Kazuyuki; Hosokawa, Takashi; Matsukoba, Ryoki; Guedel, Manuel, "Accretion bursts in low-metallicity protostellar disks", 2020, A&A, 641, 72
13. Elbakyan, Vardan G.; Johansen, Anders; Lambrechts, Michiel; Akimkin, Vitaly; Vorobyov, Eduard I., "Gravitoviscous protoplanetary disks with a dust component. III. Evolution of gas, dust, and pebbles", 2020, A&A, 637, 5
14. Vorobyov, Eduard I.; Skliarevskii, Alexandr M.; Elbakyan, Vardan G.; Takami, Michihiro; Liu, Hanyu Baobab; Liu, Sheng-Yuan; Akiyama, Eiji, "The origin of tail-like structures around protoplanetary disks",



2020, A&A, 635, 196

15. Rab, C.; Elbakyan, V.; Vorobyov, E.; Postel, A.; Güdel, M.; Dionatos, O.; Audard, M.; Kamp, I.; Thi, W.-F.; Voitke, P., "The chemistry of episodic accretion", 2020, Proceedings of the IAU, 350, 440

16. Elbakyan, Vardan G.; Vorobyov, Eduard I., "Gravitational fragmentation and formation of giant protoplanets on orbits of tens of AU", 2020, Proceedings of the IAU, 345, 234

2019

17. Vorobyov, Eduard I.; Elbakyan, Vardan G., "Gravitoviscous protoplanetary disks with a dust component. II. Spatial distribution and growth of dust in a clumpy disk", 2019, A&A, 631, 1

18. Molyarova, T. S.; Elbakyan, V. G., "Chemical impact of FUor outburst in embedded objects", 2019, INASAN Science Reports, 4, 45

19. Vorobyov, Eduard I.; Skliarevskii, Aleksandr M.; Elbakyan, Vardan G.; Pavlyuchenkov, Yaroslav; Akimkin, Vitaly; Guedel, Manuel, "Gravitoviscous protoplanetary disks with a dust component. I. The importance of the inner sub-au region", 2019, A&A, 627, 154

20. Elbakyan, Vardan G.; Vorobyov, Eduard I.; Rab, Christian; Meyer, Dominique M.-A.; Güdel, Manuel; Hosokawa, Takashi; Yorke, Harold, "Episodic excursions of low-mass protostars on the Hertzsprung-Russell diagram", 2019, MNRAS, 484, 146

21. Meyer, D. M.-A.; Vorobyov, E. I.; Elbakyan, V. G.; Stecklum, B.; Eislöffel, J.; Sobolev, A. M., "Burst occurrence in young massive stellar objects", 2019, MNRAS, 482, 5459

2018

22. Pavlyuchenkov, Ya. N.; Elbakyan V. G.; Vorobyov E. I.; Shustov B. M., "Gravitationally Bound Fragments in a Protoplanetary Disk as Possible Places of Chondrules Formation", 2018, LPICo, 2067, 6037P

23. Vorobyov, Eduard I.; Elbakyan, Vardan G., "Gravitational fragmentation and formation of giant protoplanets on tens-of-au orbits", 2018, A&A, 618, 7

24. Vorobyov, Eduard I.; Elbakyan, Vardan G.; Plunkett, Adele L.; Dunham, Michael M.; Audard, Marc; Guedel, Manuel; Dionatos, Odysseas, "Knotty protostellar jets as a signature of episodic protostellar accretion?", 2018, A&A, 613, 18

2017

25. Vorobyov, Eduard I.; Steinrueck, Maria; Elbakyan, Vardan; Guedel, Manuel, "Formation of freely floating sub-stellar objects via close encounters", 2017, A&A, 608, 107

26. Vorobyov, Eduard; Elbakyan, Vardan; Hosokawa, Takashi; Sakurai, Yuya; Guedel, Manuel; Yorke, Harold, "The effect of accretion on the pre-main-sequence evolution of low-mass stars and brown dwarfs", 2017, A&A, 605, 77

27. Rab, Ch., Elbakyan, V., Vorobyov, E., Güdel, M., Dionatos, O., Audard, M., Kamp, I., Thi, W.-F., Voitke, P., Postel, "The chemistry of episodic accretion in embedded objects. 2D radiation thermo-chemical models of the post-burst phase", 2017, A&A, 604, 15

28. Eduard I. Vorobyov, Vardan Elbakyan, Michael M. Dunham, Manuel Güedel, "On the nature of very low luminosity objects (VeLLOs)", 2017, A&A, 600, 36

29. I. Baraffe, V. G. Elbakyan, E. I. Vorobyov, G. Chabrier, "Self-consistent evolution of accreting low-mass stars and brown dwarfs", 2017, A&A, 597, 19

30. Vorobyov, E. I.; Elbakyan, V.; Hosokawa, T.; Sakurai, Y.; Guedel, M.; Yorke, H., "Pre-main-sequence evolution of low-mass stars and brown dwarfs with accretion", 2017, MmSAI, 88, 627

2016

31. Elbakyan V.G., Vorobyov E.I., Glebova G.M., "Variations in the accretion rate and luminosity in gravitationally unstable protostellar disks", 2016, Astronomy Reports, 60, 879



OTHER INFORMATION

References

Prof. Sergei Nayakshin

University of Leicester

sn85@leicester.ac.uk

Dr. Eduard Vorobyov

University of Vienna

eduard.vorobiev@univie.ac.at

Dr. Michihiro Takami

Academia Sinica Institute of Astronomy and Astrophysics (ASIAA)

hiro@asiaa.sinica.edu.tw

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Place and date: Leicester, UK, 09/01/2023

SIGNATURE