



Anexa nr. 1 – Cerere de premiere*

1. Candidat

Nume: *Popescu*

Nume anterioare (dacă este cazul): -

Prenume: *Marcel*

Doctor din anul (se prezintă copie a diplomei de doctor sau echivalent): *2012*

Poziția ocupată: *Cercetător științific gradul II*

Instituția: *Institutul Astronomic al Academiei Române*

Telefon mobil:

Adresa de e-mail:

2. Ediția “Gala Cercetării Românești”: *2024*

3. Premiul și categoria pentru care aplică (individual sau echipă de cercetare): *individual, Fizică – Premiul “Șerban Țițeica”;*

4. Lider de echipă, dacă este cazul: -

5. Componența echipei de cercetare, dacă este cazul (numele membrilor echipei, poziția ocupată, anul ultimei diplome acordate): -

6. O descriere a celor mai importante realizări științifice din ultimii 5 ani (max. 4 pag., format A4, caractere Times New Roman, 12 puncte, spațiere între linii de 1,5 și margini de 2 cm).**

Anexa1_CerereDePremiere_6.pdf

7. Curriculum Vitae narativ al candidatului “individual” sau al fiecărui membru al echipei de cercetare, în cazul candidatului “echipă de cercetare”, din care să reiasă rezultatele activității de cercetare din ultimii 5 ani, conform indicatorilor cantitativi din Anexa nr. 2 la regulament și criteriilor de evaluare calitativă prevăzute în Anexa nr. 3 la regulament.

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8. Lista publicațiilor candidatului “individual” sau a fiecărui membru al echipei de cercetare, în cazul candidatului “echipă de cercetare”, cu evidențierea publicațiilor relevante ale candidatului în ultimii 5 ani și a publicațiilor comune ale membrilor unei echipe de cercetare în cazul candidatului “echipă de cercetare”. Se menționează și un link al paginii web unde se regăsesc publicațiile candidatului. *Anexa1_CerereDePremiere_8.pdf*



9. Lista proiectelor de cercetare câștigate de candidat și valoarea acestora.

Anexa1_CerereDePremiere_9.pdf

10. Lista brevetelor depuse și a celor acceptate, dacă este cazul. -

* Se redactează în limba engleză. Prin excepție, redactarea cererii de premiere se face în limba română pentru cererile din domenii cu specific românesc: limba și literatura română și dreptul românesc.** Rezultatele activității de cercetare sunt evaluate conform Anexei nr. 3 la Regulamentul de organizare și funcționare a programului Gala Cercetării Românești.

6. Significant and representative scientific achievements

My research topics concern the Solar System astrophysics with emphasis on the minor bodies, asteroids and comets. Within this topic I am expert into the physical properties of these celestial objects which I'm determining using ground-based observations (spectroscopic, photometric, astrometric) and space-missions data. I'm conducting various long-term telescope observation programs and I'm part of the scientific working groups of several space-missions.

I became an active author and co-author of scientific articles in 2011. I have co-authored a total of 65 articles (ISI articles with impact factor greater than 1.5) in spectroscopy, astrometry, dynamical and mineralogical modeling of the small bodies from the Solar System. I was the first author for 10 of these papers, which were published in the Astronomy & Astrophysics and Monthly Notices of the Royal Astronomical Society journals (Impact Factor > 5). My scientometric indicators are: Hirsch index: 18 – according to Scopus; 23 according to Google Scholar.

I am constantly refereeing articles for the major scientific journals: Science, Nature, Nature Astronomy, Astronomy&Astrophysics, Monthly Notices of the Royal Astronomical Society, Advances in Space Science, Icarus, Planetary Science Journal. I was referee for the Time Allocation Committee of Opticon network of telescopes, for Spanish Time Allocation Committee, and for the Italian Time Allocation Committee.

I am involved into international planetary science research programs on the following topics:

- a) I'm co-leading the program "Spectro-photometric characterization of near-Earth objects at the Canary Islands Observatories". The aim of my program is to characterize the asteroids and the comets which are close to the Earth orbit to understand their physical properties, their origin, the potential danger to mankind and the how these small bodies shaped the life on Earth. In addition, these are considered ideal targets for the In-Situ Resource Utilization (ISRU) and could become a source of materials for space activities in the near future. Representative publications: 1) Popescu et al. 2019, *Astronomy & Astrophysics* -- "Near-Earth asteroids spectroscopic survey at Isaac Newton Telescope"; 2) Popescu et al. 2020, *MNRAS* -- "Physical characterization of 2020 AV2, the first known asteroid orbiting inside Venus orbit"; Morate D., Popescu M. et al. *MNRAS* 2023; "Mineralogical analysis of 14 PHAs from ViNOS data";
- b) I'm co-leading the asteroid composition and space weathering characterization task for the ESA/Hera space mission (I'm a member of the core scientific team for this mission). I am member of the Science Advisory Group for the ESA/NEOMIR mission concept. I am member of the science teams JAXA/Haybusa-2#. I was member of the NASA/OSIRIS-Rex, and NASA/DART space missions. Representative publications: Tatsumi, Eri & Popescu, Marcel et al. 2021, *MNRAS*, "Widely distributed exogenic materials of varying compositions and morphologies on asteroid

(101955) Bennu "; DellaGiustina D., ..., Popescu, M ; et al 2020, *Science*, "Variations in color and reflectance on the surface of asteroid (101955) Bennu"; Tatsumi, E., ..., Popescu, M. et al. 2021, *Nature Astronomy*, "Collisional history of Ryugu's parent body from bright surface boulders"; Nicholas Moskovitz ... Marcel M. Popescu, et al. "Photometry of the Didymos system across the DART impact apparition", Planetary Science Journal (PSJ) – accepted.

- c) Data-mining and software packages for planetary science. Since the beginning of my career **I was among the first researchers to design and implement data-mining tools for automatically search the world-wide telescope observational archives** for recovering the unnoticed asteroids (I gave talks on this topic at various conference from 2010). **I am leading the program** "Near-infrared colors of minor planets recovered from VISTA-VHS survey (MOVIS)", I am a key member of the "Hubble Asteroid Hunter" – data mining for asteroids in Hubble Legacy Archive , since 2009 I'm a key member of the EURONEAR (a wide network of european astronomers dedicated to asteroids discovery and characterization), I am member of the project "Solar System science with ESA Euclid mission". Representative papers: Popescu, M. et. al. 2018, *Astronomy & Astrophysics*; "Taxonomic classification of asteroids based on MOVIS near-infrared colors", Morate, David; Licandro, Javier; Popescu, Marcel; de León, Julia, 2018, *Astronomy & Astrophysics*, "Color study of asteroid families within the MOVIS catalog", Kruk Sandor, García-Martín Pablo, Popescu Marcel et al. 2023, *Nature Astronomy*, "The impact of satellite trails on Hubble Space Telescope observations".

- d) **I'm leading the project "Data-parallel detection of Solar System objects and space debris"**, which implements cutting-edge technology to detect the near-Earth objects. Representative publication: Popescu et al. 2023, *Astronomy & Astrophysics* -- "Discovery and physical characterization as the first response to a potential asteroid collision: The case of 2023 DZ2";

I am strongly involved in developing Romanian astronomical community: 1) **I am training students and young researchers** (some representative articles of my students: Mansour, Popescu et al. 2020 MNRAS; Simion, Popescu et al. 2021 MNRAS; Prodan, Popescu et al. 2024 MNRAS - under review); 2) I am involved in **developing the observational infrastructure** (e.g. Gherase et al. 2017 RoAj) and I train telescope observers; 3) I am **conducting citizen science observational programs for Romanian amateur astronomers** (e.g. Santos-Sanz, P., Ortiz, J. L., Sicardy, B., Popescu, M., et al. 2022, *Astronomy & Astrophysics*, "Physical properties of the trans-Neptunian object (38628) Huya from a multi-chord stellar occultation").

Asteroid (22281) Popescu - The asteroid (22281) 1985 PC discovered in 1985 Aug. 14 by E. Bowell was named Popescu as a recognition for my contributions in the field of asteroid spectroscopy (<http://ssd.jpl.nasa.gov/sbdb.cgi?sstr=Popescu>)

7. Curriculum Vitae

PERSONAL INFORMATION:

Name: POPESCU Marcel; Address:

Date and place of birth: June 07. 1983, Horezu, Romania; E-mail:

Mobile: -

EDUCATION, DEGREES AND DIPLOMAS:

2007 - 2012, *Doctoral studies in Astronomy and Astrophysics*; Thesis Title: "Techniques for asteroid spectroscopy"; Joint coordination: 1) Politehnica University of Bucharest, Faculty of Applied Sciences, Department of Physics; 2) École Doctorale d'Astronomie et d'Astrophysique de l'Île-De-France, Observatoire de Paris.

2002 - 2007, *Engineer diploma – Radio and Optical Communications*; Politehnica University of Bucharest, Faculty of Electronics and Telecommunications.

CAREER:

1) Astronomical Institute of the Romanian Academy, *scientific researcher II*. Intermediary steps: 10/2012 – 10/2013: research assistant, 11/2013 – 10/2014: scientific researcher, 10/2014 – 12/2017, 01/2020 - 07/2021 scientific researcher III .

2) Instituto de Astrofísica de Canarias (IAC), *postdoctoral researcher*, 01/2018 – 01/2020. Project: Science with OSIRIS-Rex.

3) Observatoire de Paris – IMCCE, *junior researcher*, scholarship from European Space Agency, 10/2010 – 04/2011.

4) Private sector: *senior electronic engineer*, SC. Infineon Technologies Romania CO&SCS, Product Engineer, 05/2011 - 03/2016 (with several interruptions); *embedded software engineer*, ExaqtWorld Romania, 07/2009 – 09/2010; *system design engineer*, Atmel/Mosys Romania S.R.L, 08/2006 – 02/2009.

PROJECTS:

1. **Principal Investigator:** "Data-parallel detection of Solar System objects and space debris(ParaSOL)". This project is financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS - UEFISCDI, project number PN-III-P2-2.1-PED-2021-3625. Budget: **598 795 RON (~120 000 euro)**. Duration: June 21, 2022 - June 20, 2024. Project website: <https://planet.astro.ro/ParaSOL/>

2. **Principal Investigator:** "Big Data for Small Bodies (BD4SB)". This project is financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS - UEFISCDI, project number PN-III-P1-1.1-TE-2019-1504. Budget: **431 900 RON (~90 000 euro)**. Duration: October 28, 2020 - October 27, 2022. Project website: <https://planet.astro.ro/BD4SB/>
3. **Key member:** "VESS - Extensive use of *know-how* for space and security activities" (Valorificarea extensivă a experienței în activități de spațiu și securitate). This work is financed by Romanian National Authority for Scientific Research – UEFISCDI, project No. PN-III-P1-1.2-PCCDI-2017-0371. The budget I am administrating: **50 000 RON (~10 500 Euro)**. Duration April, 2018 – December 2020.
4. **Principal Investigator:** "CMAPS - Compositional mapping of asteroid population based on spectral and spectro-photometric data". This project was financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS – UEFISCDI, project number PN-II-RU-TE-2014-4-2199. **Budget: 549.125,00 RON (~125 000 euro)**. Duration: October 01, 2015 - September 30, 2017. Project website: <http://observer.astro.ro/cmmaps/>
5. **Member of the team as postdoctoral researcher** (employed to work on this project by LESIA/Paris Observatory partner): "NEOShield-2: Science and Technology for Near-Earth Object Impact Prevention" funded by the EU European Commission Research and Innovation programme Horizon 2020. Duration: temporary contracts totaling 8 months over October 31 – December 2017.
6. **Principal Investigator:** "Spectral and Astrometric studies of near-Earth asteroids", financed by CEI Canarias: Campus Atlántico Tricontinental - 08/2014 – 11/2014. **Budget: 9000 euro.**
7. **Key member (Group leader for "Asteroid Spectra"):** "Compositional and dynamical modeling of near-Earth asteroids". Financed by Romanian Space Agency in the frame of Space Technology and Advanced Research - Programme for Research, Development and Innovation 2012.

RESEARCH PROGRAMS

1. I am currently involved into international planetary science research programs on the following topics: **a)** "Spectro-photometric characterization of near-Earth asteroids at the Canary Islands Observatories" (*I'm co-leading this program*), **b)** "Near-infrared colors of minor planets recovered from VISTA-VHS survey (MOVIS)" (*I'm leading this program*), **c)** I am member of the project "Solar System science with ESA Euclid mission", **d)** I am member of the project "Hubble Asteroid Hunter" – data mining for asteroids in Hubble Legacy Archive, **e)** I'm member in the Working Group 2 - "Remote Observations", and Working Group 4 - "Data analysis" (I'm co-leading the compositional and space weathering characterization tasks) for the ESA/Hera mission. **f)** I'm member of the JAXA

Hayabusa2# mission, **g**) I am *member of the Science Advisory Group* for the ESA/NEOMIR mission concept, **h**) I'm a key member of the EURONEAR network for asteroids discovery (I joined in 2009).

2. a) I was member of the Science Team of the NASA/OSIRIS-Rex mission, b) I participated to the data analysis for JAXA/Hayabusa2 mission, c) I was member of the H2020 NEOROCS project (it received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 870403.) d) I was member of the ESA – P3 NEO – I, a project financed by European Space Agency for the asteroid characterization.

Co-ADVISER OF Bachelor/MASTER PROJECTS for eight students in the domain of astronomy and electronics. TUTOR and teaching at ERASMUS+/OPTICON Summer School 2019: Observational Astrophysics (<https://opticon-schools.nbi.ku.dk/other-schools/from-proposals-to-publication/>). Responsible for various internships at Astronomical Institute of the Romanian Academy. Coordinator in the framework of for the Spanish Light Bridges Advanced Fellowship (December 2023 – November 2024).

SCIENTOMETRIC INDICATORS:

HIRSCH INDEX: 17 – according to Scopus; 23 according to Google Scholar.

Scopus ID: <https://www.scopus.com/authid/detail.uri?authorId=52164449300>

Google Scholar ID: <https://scholar.google.com/citations?user=YL3HR5AAAAAJ&hl=en>

Publons: <https://publons.com/researcher/3146370/marcel-popescu/>

ORCID: <https://orcid.org/0000-0001-8585-204X>

REFEREE for scientific journals: Science, Nature, Nature Astronomy, Astronomy&Astrophysics, Monthly Notices of the Royal Astronomical Society, Advances in Space Science, Icarus, Planetary Science Journal.

REFEREE for Time Allocation Committee of Opticon network and for Spanish Time Allocation Committee, and for the Italian Time Allocation Committee for the LBT-TNG-REM telescopes

INVITED TALKS, SEMINARS:

1. Seminar at Astronomical Institute of Romanian Academy, June 21, 2023, “Discovery and physical characterization as the first response to a potential asteroid collision: The case of 2023 DZ2”
2. Invited public talk at IAU symposium 364, Iași, October 20, 2021, “Sample-return missions to asteroids: one step further for space exploration”

3. Webinar at Observatório Nacional, Rio de Janeiro, Brazil – November 16, 2017: “Compositional mapping of asteroids population using near-infrared data”
4. Seminar at IMCCE – Paris Observatory – April 03, 2017: “Spectral characterization of small NEOs in the framework of NEOSHIELD-2 project”
5. Seminar at IMCCE – Paris Observatory – November 07, 2016: “Compositional mapping of asteroids population using near-infrared data”
6. Seminar at LESIA/Paris Observatory - March 21, 2016: “Compositional mapping of minor planets population using near-infrared data”
7. Seminar at Instituto de Astrofísica de Canarias (IAC) – July 02, 2015: “Near-Infrared colors of minor planets recovered from VISTA - VHS survey”

TELESCOPE OBSERVATIONAL EXPERIENCE

Gran Telescopio Canarias (GTC) - 10.4m, visitor mode, *William Herschel Telescope* - 4.2m and *Isaac Newton Telescope (INT)* – 2.5m, Roque de Los Muchachos Observatory (ORM) in La Palma (Canary Islands/Spain). *ESO - New Technology Telescope* (La Silla Observatory, Chile) - 3.58m. *NASA Infrared Telescope Facility (IRTF)* - 3m, Mauna Kea, Hawaii. *Telescopio Carlos Sánchez* – 1.52m, Teide Observatory (Canary Islands/Spain). Since 2015, I am constantly observing (2 nights/month on average) with various telescopes with the aperture in the range of 0.25 – 1m.

SOFTWARES / SCRIPTING / PROGRAMMING LANGUAGES

Matlab, Octave, Python; IDL, IRAF; Simulink, LabView; C, PHP, SQL, Assembler

OTHER AFFILIATIONS

- 1) Associated researcher at University of Craiova (10/2023 - now)
- 2) Member of International Astronomical Union (06/2020 - now)
- 3) Member of Romanian National Committee for Astronomy (10/2014 - now);
- 4) Associated researcher, Institut de Mecanique Celeste et de Calcul des Ephemerides (IMCCE), 06/2014 – 06/2018;
- 5) Vice-president, Astroclubul Bucuresti (the oldest amateur astronomers association from Romania), 03/2014-03/2016. Honorary member since 11/2020.

RECOGNITIONS, AWARDS: Asteroid (22281) Popescu - The asteroid (22281) 1985 PC discovered in 1985 Aug. 14 by E. Bowell was named Popescu as a recognition for my contributions in the field of asteroid spectroscopy (<http://ssd.jpl.nasa.gov/sbdb.cgi?sstr=Popescu>)

REFEREED ARTICLES where I am the first/main author

Art. 1 Popescu, Marcel M., Văduvescu, O., de León, J., de la Fuente Marcos, C., de la Fuente Marcos, R., Stănescu, M. O., Alarcon, M. R., Serra Ricart, M., Licandro, J., Berteșteanu, D., Predatu, M., Curelaru, L., Barwell, F., Jhass, K., Boldea, C., Aznar Macías, A., Hudin, L., Dumitru, B. A.; "Discovery and physical characterization as the first response to a potential asteroid collision: The case of 2023 DZ2"; *Astronomy & Astrophysics*, Volume 676, id.A126, 14 pp.(08 2023), DOI: 10.1051/0004-6361/202346751 **I.F. 6.5**

Art. 2 Tatsumi, Eri & Popescu, Marcel; Campins, Humberto; de León, Julia; García, Juan Luis Rizos; Licandro, Javier; Simon, Amy A.; Kaplan, Hannah H.; DellaGiustina, Daniella N.; Golish, Dathon R.; Lauretta, Dante S.; "Widely distributed exogenic materials of varying compositions and morphologies on asteroid (101955) Bennu "; *Monthly Notices of the Royal Astronomical Society*, <https://doi.org/10.1093/mnras/stab2548> Volume 508, Issue 2, Pages 2053–2070, (December 2021) **I.F. 5.235**

Art. 3 Popescu, M.; de León, J.; de la Fuente Marcos, C.; Văduvescu, O.; de la Fuente Marcos, R.; Licandro, J.; Pinter, V.; Tatsumi, E.; Zamora, O.; Fariña, C.; Curelaru, L.; "Physical characterization of 2020 AV2, the first known asteroid orbiting inside Venus orbit"; *Monthly Notices of the Royal Astronomical Society*, Volume 496, Issue 3, pp.3572-3581; (06/2020) **I.F. 5.356**

Art. 4 Popescu, M.; Văduvescu, O.; de León, J.; Gherase, R. M.; Licandro, J.; Boacă, I. L.; Şonka, A. B.; Ashley, R. P.; Močnik, T.; Morate, D.; Predatu, M.; De Prá, Mário; Fariña, C.; Stoev, H.; Díaz Alfaro, M.; Ordonez-Etxeberria, I.; López-Martínez, F.; Errmann, R.; "Near-Earth asteroids spectroscopic survey at Isaac Newton Telescope"; *Astronomy & Astrophysics*, Volume 627, id.A124, 21 pp. (07/2019) **I.F. 5.636**

Art. 5 Popescu, M.; Licandro, J.; Carvano, J. M.; Stoicescu, R.; de León, J.; Morate, D.; Boacă, I. L.; Cristescu, C. P.; "Taxonomic classification of asteroids based on MOVIS near-infrared colors"; *Astronomy & Astrophysics*, Volume 617, id.A12, (09/2018). **I.F. 5.636**

Art. 6 Popescu, M.; Perna, D.; Barucci, M. A.; Fornasier, S.; Doressoundiram, A.; Lantz, C.; Merlin, F.; Belskaya, I. N.; Fulchignoni, M.; "Olivine-rich asteroids in the near-Earth space"; *Monthly Notices of the Royal Astronomical Society*, Volume 477, Issue 2, p.2786-2795, (06/2018). **I.F. 5.356**

Art. 7 Popescu, M.; Licandro, J.; Morate, D.; de León, J.; Nedelcu, D. A.; Rebolo, R.; McMahon, R. G.; Gonzalez-Solares, E.; Irwin, M.; "Near-infrared colors of minor planets recovered from VISTA-VHS survey (MOVIS)"; *Astronomy & Astrophysics*, Volume 591, id.A115, (06/2016). **I.F. 5.636**

Art. 8 Popescu, M.; Birlan, M.; Nedelcu, D. A.; Vaubaillon, J.; Cristescu, C. P.; „Spectral properties of the largest asteroids associated with Taurid Complex”; *Astronomy & Astrophysics*, Volume 572, id.A106, (12/2014). **I.F. 5.636**

Art. 9 Popescu, M.; Birlan, M.; Nedelcu, D. A.; „Modeling of asteroid spectra - M4AST”; *Astronomy & Astrophysics*, Volume 544, id.A130, (08/2012). **I.F. 5.636**

Art. 10 Popescu, M.; Birlan, M.; Binzel, R.; Vernazza, P.; Barucci, A.; Nedelcu, D. A.; DeMeo, F.; Fulchignoni, M.; „Spectral properties of eight near-Earth asteroids”; *Astronomy & Astrophysics*, Volume 535, id.A15, (11/2011). **I.F. 5.636**

==Invited article for News & Views, Nature Astronomy==

Popescu, Marcel M.; "The impact of citizen scientist observations" *Nature Astronomy*, Volume 7, p. 516-517 (05/2023), DOI: 10.1038/s41550-023-01954-6

==REFEREED ARTICLES where I am co-author==

Art. 11 García Martín Pablo, Kruk Sandor, **Popescu Marcel**, Merín Bruno, et al.; "Hubble Asteroid Hunter. III. Physical properties of newly found asteroids"; *Astronomy & Astrophysics*, accepted for publication **I.F. 6.5**

Art. 12 Ivanova, Oleksandra, ... **Popescu, Marcel** ... et al. " Long-lasting activity of asteroid (248370) 2005 QN173", *Monthly Notices of the Royal Astronomical Society*, Volume 525, Issue 1, pp.402-414, DOI: 10.1093/mnras/stad2294, (10/2023) **I.F. 4.8**

Art. 13 Rommel, F. L., **Popescu, M.** ... et al. "A large topographic feature on the surface of the trans-Neptunian object (307261) 2002 MS4 measured from stellar occultations", *Astronomy & Astrophysics*, Volume 678, id.A167, 25 pp., DOI: 10.1051/0004-6361/202346892, (10/2023) **I.F. 6.5**

Art. 14 Licandro Javier, **Popescu Marcel** et al. "Observations of two superfast rotator NEAs: 2021 NY1 and 2022) AB"; *Monthly Notices of the Royal Astronomical Society*, Volume 521, Issue 3, pp.3784-3792; DOI: 10.1093/mnras/stad708, (05/2023) **I.F. 4.8**

Art. 15 Tatsumi E., Vilas F., de León J., **Popescu, M.** et al; "Near-ultraviolet absorption distribution of primitive asteroids from spectrophotometric surveys. I. Radial distribution"; *Astronomy & Astrophysics*, Volume 672, id.A189, 15 pp., DOI: 10.1051/0004-6361/202244499, (04/2023) **I.F. 6.5**

Art. 16 de León J. ... **Popescu M.**; "Characterisation of the new target of the NASA Lucy mission: Asteroid 152830 Dinkinesh (1999 VD57)"; *Astronomy & Astrophysics*, Volume 672, id.A174, 4 pp. DOI: 10.1051/0004-6361/202346278, (4/2023) **I.F. 6.5**

Art. 17 Kruk Sandor, García-Martín Pablo, **Popescu Marcel** et al.; "The impact of satellite trails on Hubble Space Telescope observations"; *Nature Astronomy*, Volume 7, p. 262-268; DOI: 10.1038/s41550-023-01903-3, (3/2023) **I.F. 15.647**

Art. 18 Oszkiewicz Dagmara, Klimczak Hanna, Carry Benoit, Penttilä Antti, **Popescu Marcel** et al.; "Spectral analysis of basaltic asteroids observed by the Gaia space mission"; *Monthly Notices of the Royal Astronomical Society*, Volume 519, Issue 2, pp.2917-2928; DOI: 10.1093/mnras/stac3442, (2/2023) **I.F. 4.8**

Art. 19 Morate D., **Popescu M.** et al.; "Mineralogical analysis of 14 PHAs from ViNOS data"; *Monthly Notices of the Royal Astronomical Society*, Volume 519, Issue 2, pp.1677-1687; DOI: 10.1093/mnras/stac3530, (2/2023) **I.F. 4.8**

Art. 20 Pinilla-Alonso, Noemí, **Popescu, Marcel**, Licandro, Javier, Fernández-Valenzuela, Estela, Grundy, Will M., Duffard, Rene, Cabrera-Lavers, Antonio, Hidalgo Soto, Diego, Rijos, Juan Luis,

Morate, David; *The Planetary Science Journal*, Volume 3, Issue 12, id.267, 10 pp.,DOI: 10.3847/PSJ/ac9f11 (10/2022) **I.F. 3.4**

Art. 21 Santos-Sanz, P., Ortiz, J. L., Sicardy, B., **Popescu, M.**, et al.; "Physical properties of the trans-Neptunian object (38628) Huya from a multi-chord stellar occultation"; *Astronomy & Astrophysics*, Volume 664, id.A130, 18 pp., DOI: 10.1051/0004-6361/202141546 (08/2022) **I.F. 6.5**

Art. 22 Tatsumi E., Tinaut-Ruano F., de León J., **Popescu M.**, Licandro J.; "Near-ultraviolet to visible spectroscopy of the Themis and Polana-Eulalia complex families"; *Astronomy & Astrophysics*, Volume 664, id.A107, 18 pp. DOI: 10.1051/0004-6361/202243806 (8/2022) **I.F. 6.5**

Art. 23 Pravec P., Thomas C. A., Rivkin A. S., Scheirich P., Moskovitz N., Knight M. M., Snodgrass C., de León J., Licandro J., **Popescu M.** et al. (27 authors) "Photometric Observations of the Binary Near-Earth Asteroid (65803) Didymos in 2015-2021 Prior to DART Impact"; *The Planetary Science Journal*, Volume 3, Issue 7, id.175, 22; DOI: 10.3847/PSJ/ac7be1 (7/2022) **I.F. 3.4**

Art. 24 Vara-Lubiano M., Benedetti-Rossi G., Santos-Sanz P., Ortiz J. L., Sicardy B., **Popescu M.** , Morales N. et al.; "The multichord stellar occultation on 2019 (10/22 by the trans-Neptunian object (84922) 2003 VS2"; *Astronomy & Astrophysics*, Volume 663, id.A121, 17 pp.; DOI: 10.1051/0004-6361/202141842 (7/2022) **I.F. 6.5**

Art. 25 Farnocchia Davide, Reddy Vishnu, Bauer James M., ... **Popescu Marcel**...(72 authors); "International Asteroid Warning Network Timing Campaign: 2019 XS"; *The Planetary Science Journal*, Volume 3, Issue 7, id.156, 13 pp.; DOI: 10.3847/PSJ/ac7224 (7/2022) **I.F. 3.4**

Art. 26 Kruk Sandor, García Martín Pablo, **Popescu Marcel**, Merín Bruno, Mahlke Max et al.; "Hubble Asteroid Hunter. I. Identifying asteroid trails in Hubble Space Telescope images"; *Astronomy & Astrophysics*, Volume 661, id.A85, 15 pp.; DOI: 0.1051/0004-6361/202142998 (5/2022) **I.F. 6.5**

Art. 27 Reddy Vishnu, Kelley Michael S., Dotson Jessie, ... **Popescu Marcel**,(100 authors) "Apophis Planetary Defense Campaign"; *The Planetary Science Journal*, Volume 3, Issue 5, id.123, 16 pp.; DOI: 10.3847/PSJ/ac66eb (5/2022) **I.F. 3.4**

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9. Projects for which I obtained financing

1. Principal Investigator: "Data-parallel detection of Solar System objects and space debris(ParaSOL)". This project is financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS - UEFISCDI, project number PN-III-P2-2.1-PED-2021-3625. Budget: 598 795 RON (~**120 000 euro**). Duration: June 21, 2022 - June 20, 2024. Project website: <https://planet.astro.ro/ParaSOL/>

2. Principal Investigator: "Big Data for Small Bodies (BD4SB)". This project is financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS - UEFISCDI, project number PN-III-P1-1.1-TE-2019-1504. Budget: 431 900 RON (~**90 000 euro**). Duration: October 28, 2020 - October 27, 2022. Project website: <https://planet.astro.ro/BD4SB/>

3. Key member (Responsible for the partner institution): "VESS - Extensive use of know-how for space and security activities" (Valorificarea extensivă a experienței în activități de spațiu și securitate). This work is financed by Romanian National Authority for Scientific Research – UEFISCDI, project No. PN-III-P1-1.2-PCCDI-2017-0371. The budget I am administrating: 50 000 RON (~**10 500 Euro**). Duration April, 2018 – December 2020.

4. Principal Investigator: "CMAPS - Compositional mapping of asteroid population based on spectral and spectro-photometric data". This project was financed by a grant of the Romanian National Authority for Scientific Research and Innovation, CNCS – UEFISCDI, project number PN-II-RU-TE-2014-4-2199. Budget: 549.125,00 RON (~**125 000 euro**). Duration: October 01, 2015 - September 30, 2017. Project website: <http://observer.astro.ro/cmmaps/>

5. Principal Investigator: "Spectral and Astrometric studies of near-Earth asteroids", financed by CEI Canarias/Spain: Campus Atlántico Tricontinental - 08/2014 – 11/2014. Budget: **9000 euro**.