

Curriculum Vitae

Name: Ivanova Oleksandra Viktorovna
Date of Birth: 18 July 1978
Place of Birth: Shelehov, Irkutskiy region, Russia
Nationality: Ukraine
Present position: Senior research fellow
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h-index (Scopus) **12**

Education:

2000 Mag. Sci., Astronomer, National Taras Shevchenko University of Kyiv
2004 Ph. D., Physics and Mathematics Sci., Kyiv, Main Astronomical Observatory of NAS of Ukraine (MAO NASU)
2021 Doctor of Physical and Mathematical Sciences (MAO NASU)

Field of research:

- Photometry, spectroscopy, and polarimetry of small bodies of the Solar system. Modeling of an active process on active small bodies of the Solar system.
- Study of mechanism of comet activity at large heliocentric distances (more 4 than au).

Professional Experience:

2000-2004 PhD student (MAO NASU)
2004-2006 Junior Scientific Researcher (MAO NASU)
2006-2011 Scientific Researcher (MAO NASU)
2012-2016 Senior Scientific Researcher (MAO NASU)
2016-now: Senior Scientific Researcher (AI SAS)

Membership of professional societies:

- Member of the International Astronomical Union
- Member of the European Astronomical Society
- Member of the Astronomical Association of Ukraine

Academic and professional honors and awards:

- The premium of Yu. Drogobych for young scientists, UAA, 2006
- Awards of Kyiv Mayor for talented young scientists, 2010
- Awards of Barabashov (Award of NAS of Ukraine) for a series of scientific papers "Physical characteristics of comets according to spectrophotometric studies and dynamic modeling", 2016
- The L'Oréal Prize for Women in Science, 2019

Scholarships:

- (February-December, 2002-2004) Scholarship for young science from National Academy

of science of Ukraine

- (February-December, 2006) Scholarship for young scientist from President of Ukraine
- (March-December, 2007-2008) Scholarship for young scientists from the National academy of science of Ukraine
- (February-December, 2010) Scholarship for young scientist from President of Ukraine
- (March-December, 2012-2013) Scholarship for young scientists from the National academy of science of Ukraine
- (August-September, 2009) – DAAD grant, Braunschweig, Physics Institut für Geophysik und Extraterrestrische Physik, working with Dr. J. Blum and Dr. Skorov
- (October-November, 2013) – DAAD grant, Braunschweig, Physics Institut für Geophysik und Extraterrestrische Physik, working with Dr. J. Blum and Dr. Skorov
- (May-July, 2013) – SAIA grant, Tatranska Lomnica, Astronomical institute of SAS, working with Dr. J. Svoren, L. Neslusan, and Z. Seman-Krishandova
- (March-August, 2015) – SAIA grant, Tatranska Lomnica, Astronomical institute of SAS, working with Dr. J. Svoreň, L. Neslušán and Z. Seman-Krišandova
- (May-June, 2018) – DAAD grant, Braunschweig, Physics Institut für Geophysik und Extraterrestrische Physik, working with Dr. J. Blum and Dr. Skorov

Track record of grants and funding:

- (2003-2004) Grant for the realization of science project making of young scientist from National academy of science of Ukraine (Head of the project)
- (2007-2008) Grant for the realization of science project making of young scientist from National academy of science of Ukraine (Head of the project)
- (2009) Grant for the realization of science project making of young scientist from President of Ukraine (One of the executors of the project)
- (2013-2014) Grant for the realization of science project making of young scientist from National academy of science of Ukraine (Head of the project)
- (2014, 2015, 2016) SAIA grant, Slovakia (Head of the project)
- (2016-2018) SASPRO grant (Marie Curie Fellows) for the realization of science project making of the senior researcher in Slovak research Institutions, Slovakia (Head of the project)
- (2020-2024) APVV grant, Slovakia (Head of the project)

Conferences

- 2022** Europlanet Science Congress 2022, EPSC2022, Granada, Spain, 18.09.–23.09.2022 (oral presentation)
- 2020** Scientific Conference " The New Cometary Insights from the Close Approach of 46P/Wirtanen: A Symposium in Celebration of Michael A'Hearn ", Washington, USA, 6.-8.8.2019 (oral presentation)
- 2019** European Planetary Science Congress, 16–21 September 2018, Berlin, Germany (oral presentation)
- 2018** The 16th Electromagnetic and Light Scattering Conference, Maryland, USA (oral presentation)
- 2017** Asteroids, Comets, Meteors 2017, Montevideo (3 posters)
- 2017** European Planetary Science Congress, Riga, Latvia (2 oral presentations)
- 2016** Europlanet NA1 Workshop on ground-based observations of 67P/Churyumov-Gerasimenko, Graz, Austria (oral presentation)
- 2014** Asteroids Comets Meteors (ACM), Helsinki, Finland (oral presentation, poster)
- 2006** 26th meeting of the IAU, Prague, Czech Republic (oral presentation)
- 2006** 36th COSPAR Scientific Assembly, Beijing, China (poster)
- 2004** 35th COSPAR Scientific Assembly, Paris, France (poster)
- 2002** Asteroids Comets Meteors (ACM), Berlin, Germany (poster)

Academic supervision:

- 2013** Student, Shubina O. wrote Bachelor's qualifying work "Observation and analysing of the polarization and spectral data of distant comet C/2011 J2 (Catalina) obtained with 6-m telescope" (supervisor, MAO NASU)
- 2014-2015** Student, Shubina O. wrote Magister's qualifying work "Investigation of the spectrum and imaging of Comet 103P/Hartley obtained at 6-m telescope" (supervisor, MAO NASU)
- 2016-2019** Ph.D. student, Shubina O. "Features of short-period and long-period comets based on data of polarimetric and spectral observations" (supervisor, MAO NASU)
- 2020-2021** Student, Voitko A. wrote Magister's qualifying work "Dust productivity of comets from different dynamical groups in a wide range of heliocentric distances" (supervisor, AI SAS)
- 2021-now** Ph.D. student, Voitko A. "Short-term color changes in comets at large heliocentric distances" supervisor, AI SAS)
- 2022-now** Student, Kulish K. wrote Magister's qualifying work "Quasi-simultaneous photometric, polarimetric, and spectral observations of Jupiter-family comet 108P/Ciffreo." (supervisor, AI SAS)
- 2022-now** Student, Lashkova A. wrote a Bachelor's qualifying work "DUst productivity of comets from different dynamical groups in a wide range of heliocentric distances." (supervisor, AI SAS)

Teaching experience:

- 2011–2016** Taras Shevchenko National University, Physical Department., Lectures of "Physics and Chemistry of comets"

Experience summary:

- The catalog of the physical characteristics of comets 1990 - 2000 years is created (1997-2000)
- Construction and investigation of the physical model of local active areas on a surface of cometary nucleus (2000-2004)
- Imaging photometry of the active small bodies of Solar system, writing and adopting new soft for processing of data obtained with focal reducer SCORPIO at 6-m telescope (2006-present)
- For the first time a program of complex studies of distant (in which the perihelion distance $q > 4$ au) comets was proposed and performed (2006-present).
- Imaging polarimetry and spectropolarimetry (linear and circular) of the dynamical new comets, writing and adopting new soft for processing of data obtained with new focal reducer SCORPIO-2 at 6 m telescopes (2011-present)
- For the first time, distributions of brightness, color, and polarization over the comas of comets from different dynamic groups were obtained with high spatial resolution. (2011-2019)
- The results of observations of several active asteroids and their numerical simulations allowed us to determine the meteor shower responsible for the comet-like activity of asteroids that confirms the validity of the impact mechanism to explain short-term asteroid activity (2019-2021)

Observational experience:

- Photometry, spectroscopy with 2-m telescope, p. Terskol (Russia), 2005-now
- Photometry, spectroscopy, and polarimetry with 6-m telescope SAO RAN (Russia), 2006

– now

- Photometry and spectroscopy with 4.1-m telescope SOAR (Chile), 2014 – now
- Photometry and polarimetry with 2.6-m telescopes of the Crimean astrophysical observatory, Crimea, Ukraine, 2013 – now.

Organization of the international workshop:

2018 “Physics of comets after the Rosetta mission: Unresolved problems”, Stara Lesna, Slovakia from 5th – 7th September 2018. <https://www.astro.sk/AFTERROSETTA/>

Some publications:

- 1** Ivanova, O., Rosenbush, V., Luk'yanyk, I., Markkanen, J., Kleshchonok, V., Kolokolova, L., ... & Afanasiev, V. (2023). Quasi-simultaneous photometric, polarimetric, and spectral observations of distant comet C/2014 B1 (Schwartz). *Astronomy and Astrophysics*, 672, A76.
- 2** Ivanova, O., Luk'yanyk, I., Tomko, D., & Moiseev, A. (2021). Photometry and long-slit spectroscopy of the split comet C/2019 Y4 (ATLAS). *Monthly Notices of the Royal Astronomical Society*, 507(4), 5376-5389.
- 3** Ivanova, O., Rosenbush, V., Luk'yanyk, I., Kolokolova, L., Kleshchonok, V., Kiselev, N., ... & Kirk, Z. R. (2021). Observations of distant comet C/2011 KP36 (Spacewatch): photometry, spectroscopy, and polarimetry. *Astronomy & Astrophysics*, 651, A29.
- 4** Rosenbush, V., Ivanova, O., Kleshchonok, V., Kiselev, N., Afanasiev, V., Shubina, O., & Petrov, D. (2020). Comet 2P/Encke in apparitions of 2013 and 2017: I. Imaging photometry and long-slit spectroscopy. *Icarus*, 348, 113767.
- 5** Ivanova, A. V. (2020). Small Bodies of the Solar System Active at Large Heliocentric Distances: Studies with the 6-Meter Telescope of Sao Ras. *Astrophysical Bulletin*, 75(1), 31-49.
- 6** Ivanova, O., Skorov, Y., Luk'yanyk, I., Tomko, D., Husárik, M., Blum, J., ... & Voziakova, O. (2020). Activity of (6478) Gault during 2019 January 13–March 28. *Monthly Notices of the Royal Astronomical Society*, 496(3), 2636-2647.
- 7** Ivanova, O., Agapitov, O., Odstrcil, D., Korsun, P., Afanasiev, V., & Rosenbush, V. (2019). Dynamics of the CO+ coma of comet 29P/Schwassmann–Wachmann 1. *Monthly Notices of the Royal Astronomical Society*, 486(4), 5614-5620.
- 8** Ivanova, O., Luk'yanyk, I., Kolokolova, L., Das, H. S., Husárik, M., Rosenbush, V., ... & Krushinsky, V. (2019). Photometry, spectroscopy, and polarimetry of distant comet C/2014 A4 (SONEAR). *Astronomy & Astrophysics*, 626, A26.
- 9** Rosenbush, V., Ivanova, O., Kleshchonok, V., Kiselev, N., Afanasiev, V., Shubina, O., & Petrov, D. (2020). Comet 2P/Encke in apparitions of 2013 and 2017: I. Imaging photometry and long-slit spectroscopy. *Icarus*, 348, 113767.
- 10** Ivanova, O., Rosenbush, V., Afanasiev, V., & Kiselev, N. (2017). Polarimetry, photometry, and spectroscopy of comet C/2009 P1 (Garradd). *Icarus*, 284, 167-182.
- 11** Ivanova, O., Neslušán, L., Krišandová, Z. S., Svoreň, J., Korsun, P., Afanasiev, V., ... & Andreev, M. (2015). Observations of Comets C/2007 D1 (LINEAR), C/2007 D3 (LINEAR), C/2010 G3 (WISE), C/2010 S1 (LINEAR), and C/2012 K6 (McNaught) at large heliocentric distances. *Icarus*, 258, 28-36.

All publications presented: <https://scholar.google.com/citations?user=EMxqww0AAAAJ&hl=en>