

SERGEY B. POPOV

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PERSONAL DATA

BORN: 08 December 1971, Moscow, Russia

TITLES: Doctor of Sciences (habilitation), Professor of the Russian Academy of Sciences.
Habilitation (2011). "Magneto-rotational evolution and population synthesis of isolated neutron stars"

EDUCATION

FEBRUARY 1998

PHD, DEPARTMENT OF PHYSICS, LOMONOSOV MOSCOW STATE UNIVERSITY

"Population synthesis of X-ray sources after the burst of star formation and evolution of isolated neutron stars".

Supervisor: Prof. V.M. Lipunov

JANUARY 1995

DIPLOMA (SPECIALIST), DEPARTMENT OF PHYSICS, LOMONOSOV MOSCOW STATE UNIVERSITY

"A model of binary evolution after a star formation burst at the Galactic center".

Supervisor: Prof. V.M. Lipunov

SCIENTIFIC EMPLOYMENT

JUNE 2012 – TILL NOW

LEADING RESEARCHER, STERNBERG ASTRONOMICAL INSTITUTE, LOMONOSOV MOSCOW STATE UNIVERSITY

JANUARY 2023 – SEPTEMBER 2024

ASSOCIATE RESEARCH OFFICER, ICTP (TRIESTE, ITALY)

APRIL 2008 – JUNE 2012

SENIOR RESEARCHER, STERNBERG ASTRONOMICAL INSTITUTE, LOMONOSOV MOSCOW STATE UNIVERSITY

OCTOBER 2002 – OCTOBER 2004

POSTDOC, DEPARTMENT OF PHYSICS, UNIVERSITY OF PADUA (ITALY)

MARCH 2000 – APRIL 2008

RESEARCHER, STERNBERG ASTRONOMICAL INSTITUTE, LOMONOSOV MOSCOW STATE UNIVERSITY

APRIL 1998 – MARCH 2000

JUNIOR RESEARCHER, STERNBERG ASTRONOMICAL INSTITUTE, LOMONOSOV MOSCOW STATE UNIVERSITY

TEACHING EMPLOYMENT AND VISITING PROFESSORSHIPS

MARCH 2024 – SEPTEMBER 2024

VISITING PROFESSOR, UNIVERSITY OF PADUA (ITALY)

Lectures and seminars: neutron stars, black holes, and binary systems

SEPTEMBER 2019 – DECEMBER 2022

LECTURER (PART-TIME), DEPARTMENT OF SPACE RESEARCH, LOMONOSOV MOSCOW STATE UNIVERSITY

Lectures and seminars: introductory astrophysics, general astrophysics

SEPTEMBER 2016 – JUNE 2023

PROFESSOR (PART-TIME), DEPARTMENT OF PHYSICS, LOMONOSOV MOSCOW STATE UNIVERSITY

Lectures and seminars: general astrophysics, neutron stars and black holes, exoplanets.

Since 2008 I have been giving a course on neutron stars and black holes without a contract.

12 STUDENTS HAVE GRADUATED UNDER MY SUPERVISION (SPECIALIST OR MASTER'S DEGREE).

SEPTEMBER 2018 – JUNE 2021

PROFESSOR (PART-TIME), DEPARTMENT OF PHYSICS, HIGHER SCHOOL OF ECONOMICS (HSE UNIVERSITY), MOSCOW

Lectures and seminars: introductory astrophysics, general astrophysics

SEPTEMBER 2016 – DECEMBER 2016

LECTURER (PART-TIME), POLYTECHNIC UNIVERSITY, MOSCOW

Lectures and seminars: introductory astronomy and cosmology

OCTOBER 2014 AND APRIL 2015

VISITING PROFESSOR, YAROSLAVL STATE UNIVERSITY (RUSSIA)

Lectures and seminars: modern problems in astrophysics

OCTOBER 2009 – DECEMBER 2009

VISITING PROFESSOR, UNIVERSITY OF CAGLIARI (ITALY)

Lectures and seminars: neutron stars and black holes

MAJOR ADMINISTRATIVE DUTIES

- Member of the Expert council (physics) of the Russian National Higher Attestation Commission (Ministry of Science and Higher Education, Russia)
May 2018 - May 2022
- Member of the Scientific Council of the Sternberg Astronomical Institute
June 2012 - June 2022
- Member of the hiring commission of the Sternberg Astronomical Institute
September 2008 - September 2012 and March 2014 - March 2019.

MAIN SCIENTIFIC INTERESTS

- Magneto-rotational evolution of neutron stars.
- Evolution of interacting binary systems with compact objects.
- Population synthesis of isolated neutron stars, binary systems, and exoplanets.
- Fast radio bursts.

MAIN SCIENTIFIC PUBLICATIONS

I have more than 200 scientific publications.

Total citation count (according to NASA ADS) >3500. Hirsch index (according to NASA ADS) 32.

A full list of scientific publications is available at the URL: <http://xray.sai.msu.ru/~polar/html/sci.html>

Selected publications:

- A.P. Igoshev, S.B. Popov, R. Hollerbach
"Evolution of neutron star magnetic fields"
Universe vol. 7, id. 351 (2021) arXiv: 2109.05584
- S.B. Popov, S. Mereghetti, S.I. Blinnikov, A.G. Kuranov, L.R. Yungelson
"A young contracting white dwarf in the peculiar binary HD49798/RX J0648.0-4418?"
MNRAS vol. 474 pp. 2750-2756 (2018) arXiv: 1711.02449
- S.B. Popov, R. Turolla
"Initial spin periods of neutron stars in supernova remnants"
Ap&SS vol. 341, pp. 457-464 (2012) arXiv: 1204.0632
- S.B. Popov, J.A. Pons, J.A. Miralles, P.A. Boldin, B. Posselt
"Population synthesis studies of isolated neutron stars with magnetic field decay"
MNRAS vol. 401, pp. 2675-2686 (2010) arXiv: 0910.2190
- S.B. Popov, K.A. Postnov
"Hyperflares of SGRs as an engine for millisecond extragalactic radio bursts"
arXiv:0710.2006 (2007)
- M.S. Pshirkov, S.B. Popov
"Conversion of Dark matter axions to photons in magnetospheres of neutron stars"
JETP vol. 108 pp. 384 – 388 (2009) arXiv: 0711.1264
- Popov S.B., Colpi M., Prokhorov M.E., Treves A., Turolla R.
"Young isolated neutron stars from the Gould Belt"
A&A vol. 406, pp. 111-117 (2003) astro-ph/0304141
- Popov S.B., Colpi M., Treves A., Turolla R., Lipunov V.M., Prokhorov M.E.
"The Neutron Star Census"
ApJ vol.530, pp. 896-906 (2000) astro-ph/9910114

LONG SCIENTIFIC VISITS

- October - November 2015 (1 month). University of Padua (Italy).
- March - April 2014 (1 month). Galileo Galilei Institute (Florence, Italy).
- October - December 2011 (2 months). University of Padua (Italy).
- October - December 2009 (2 months). University of Cagliari (Italy).
- September - December 2008 (3 months). University of Padua (Italy).
- September - December 2007 (4 months). Observatory of Cagliari (Italy).
- October-December 2006 (3 months). University of Como (Italy) and University of Jena (Germany).
- October-November 2005 (1 month). University of Rostock and MPE (Germany).
- April-June 2002 (3 months). Universities of Como and Milan (Italy).
- October 2001 (1 month). University of Como (Italy).
- March-July 2000 (3 months). Universities of Como and Milan (Italy).
- January 1999 (1 month). Universities of Como and Milan (Italy).

MEMBERSHIPS

- International Astronomical Union member (since 2009)
- Euro-Asian Astronomical Society member (since 1994)

LANGUAGES

Russian (native), English (fluent), Italian (medium), French (poor)

PRIZES, FELLOWSHIPS, ETC.

During my career, I received various prizes and personal fellowship. Below I list some of them.

- **PERSONAL FELLOWSHIPS:** Dynasty Foundation fellowship for young Doctors of science (2015); Dynasty Foundation fellowship for postdocs (2005-2007); INTAS Fellowship 2007-2008.
- **PRIZES FOR POPULAR SCIENCE ACTIVITY:** Belyaev prize for the best popular science book (2017); Person of the Year in Popular Science: the Ministry of Sciences and Education Award "True Science" (2016).
- **FELLOWSHIPS, GRANTS, AND PRIZES FOR YOUNG SCIENTISTS:** Young Scientists Research Award, awarded by Lomonosov Moscow State University (1999-2001, 2006, 2010); Cariplo Foundation Fellowship (2006); Presidential Fellowship for Young Scientists (2000-2003); Young scientists research award from the RSCI Foundation (2002); Young scientists research grant from the Russia Foundation for Basic research (2001); Soros (ISSEP) scholarship for post-graduates (1996-1998).

POPULAR SCIENCE AND PUBLIC OUTREACH

- I have three popular science books published in Russian
- I often give popular science lectures on various astronomical topics
- Videos of my lectures, interviews, etc. have more than 20 million views on YouTube alone.
- I published hundreds of popular science papers in Russian magazines, newspapers, etc.
- Many times I participated in TV and radio programs in Russia and abroad.
- I collaborated with artists, filmmakers, and writers on several projects related to popular science or science representation in arts.