

# Alexey Yushkov

## PERSONAL INFORMATION

*Born in Barnaul (USSR), 5 May 1973*

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*position* Senior researcher at the Institute of Physics of the CAS,  
Coordinator of the Mass Composition task  
of the Pierre Auger Observatory

## WORK EXPERIENCE

*2017–Present* Senior researcher at the Institute of Physics of the CAS, Prague, Czech Republic

*2016–2017* PostDoc, ITeDA, Buenos Aires, Argentina

*2013–2016* PostDoc, University of Siegen, Germany

*2010–2012* PostDoc, University of Santiago de Compostela, Spain

*2007–2010* PostDoc, INFN, Naples, Italy

*2006–2007* Assistant Professor, Altai State University, Barnaul, Russia

*1996–2006* Assistant Lecturer, Altai State University, Barnaul, Russia

## EDUCATION

*2005* PhD in Theoretical Physics, Altai State University, Barnaul, Russia

*1996* MSc in Physics, Altai State University, Barnaul, Russia

*1994* BSc in Physics, Altai State University, Barnaul, Russia

## TEACHING

*1999–Present* Theses supervision: 9 Bachelor, 6 Master, 2 PhD (co-supervision), 3 PhD (currently)

*2022* Lectures on measurements of cosmic rays (11th IDPASC school, Olomouc)

*2013–2014* Physics at the Pierre Auger Observatory (lectures, seminars)

*2005–2007* Introduction to High-Energy Physics (lectures, seminars)

*2005–2007* Scattering Theory (lectures, seminars)

*2005–2007* Elements of Cosmology (lectures, seminars)

*2003–2007* Stochastic Transport Theory (lectures, seminars)

*2002–2007* Thermodynamics and Statistical Physics (lectures, seminars)

*1996–2007* Programming languages (seminars)

## LANGUAGE SKILLS

Russian (native) · English (fluent) · Spanish (fluent) · Italian (fluent)  
Portuguese (fluent) · German (intermediate) · Czech (intermediate)

## PARTICIPATION IN INTERNATIONAL PROJECTS

2007–2008	Wimp Argon Program (WArP)
2008–Present	Pierre Auger Observatory

## INVITED TALKS

2014	Rencontre du Vietnam: Very High energy phenomena in the Universe, Quy Nhon, Vietnam · “Studies of UHECR composition and hadronic interactions at the Pierre Auger Observatory”
2015	Workshop on forward physics and high energy scattering at zero degree, Nagoya, Japan · “Latest results on mass composition and hadronic interactions of the UHECRs from the Pierre Auger Observatory”
2016	German Physical Society (DPG) meeting, Hamburg, Germany · “Mass composition of ultra-high energy cosmic rays: new results from the Pierre Auger Observatory and their astrophysical implications”
2016	19th International Symposium on Very High Energy Cosmic Ray Interactions, Moscow, Russia · “Recent results from the Pierre Auger Observatory on the mass composition and hadronic interactions of the ultra-high energy cosmic rays”
2018	International Symposium on Ultra-High-Energy Cosmic Rays, Paris, France · “Depth of maximum of air-shower profiles: testing the compatibility of measurements performed at the Pierre Auger Observatory and the Telescope Array experiment”
2020, 2022	9th & 11th International Conferences on New Frontiers in Physics, Kolymbari, Greece · “Highlights from the Pierre Auger Observatory”

## PUBLICATIONS &amp; CONFERENCES

41	h-index
128	Publications in refereed journals (8900 citations, Web of Science)
29	Conference proceedings
20	Participation in international conferences

## SCIENTIFIC ACTIVITIES IN LAST 5 YEARS

2014–Present	Coordination of the mass composition task of the Pierre Auger Observatory
41	Publications in refereed journals
6	Participation in international conferences
6	Talks on behalf of Auger at international conferences
7	Auger editorial boards: participation as task coordinator/proponent
3	Auger internal technical reports on mass composition/hadronic interactions
	Participation in Auger–Telescope Array working group on mass composition
	Creation of the reference simulation library of the Pierre Auger Observatory

September 13, 2024