

Curriculum Vitae — Josef Pradler

Personal information

Date of birth: August 23, 1980
Nationality: Austrian
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Education

2022 *Venia Docendi* in “Theoretical Physics” at the [University of Vienna](#)
2009 *Ph.D. in Physics* at the Technical University Munich (*summa cum laude*)
Research Institution: [Max-Planck Institute for Physics](#), Munich, Germany
2006 *M.Sc. in Physics* at the University of Vienna (*mit Auszeichnung*)
Research Institution: [Max-Planck Institute for Physics](#), Munich, Germany

Career history

2023 – *Assistant Professor* (fast-track) in [Particle Physics](#) at the University of Vienna, Austria
2018 – *Research Group Leader* (tenured) at the [Institute of High Energy Physics](#) of the Austrian Academy of Sciences, Vienna, Austria
2022 – 2023 *Scientific Associate* at the [CERN Theory Department](#), Geneva, Switzerland
2014 – 2018 *Junior Research Group Leader* at the [Institute of High Energy Physics](#) of the Austrian Academy of Sciences, Vienna, Austria
2012 – 2014 *Postdoctoral Researcher* in the [Department of Physics and Astronomy](#) at Johns Hopkins University, Baltimore, USA
2009 – 2012 *Postdoctoral Researcher* at the [Perimeter Institute of Theoretical Physics](#), Waterloo, ON, Canada

Grants

2022 – 2027 *Principal Investigator* of the [ERC Consolidator Grant](#) “New Light on Dark Matter” NLO-DM (2 Mio. EUR)
2020 – 2025 *Coordinator and Principal Investigator* [FWF Research Group](#) “STRONG-DM”, 5-year grant by the FWF (grand total 1.5 Mio. EUR)
2018 – 2023 *Faculty Member* at the [Vienna Doctoral College Particles and Interactions](#) (DK-PI), 4-year grant by the FWF
2014 – 2021 *Principal Investigator* of the [New Frontiers Group](#) “Unraveling Dark Matter”, 5+2-year group grant by the Austrian Academy of Sciences (1.4 Mio. EUR)

Honors and Awards

2016 Hans and Walter Thirring Prize by the Austrian Academy of Sciences
2015 Young Principal Investigator Award by the Society of Austrian Scientists in North America
2015 Ludwig Boltzmann Prize by the Austrian Physical Society
2007 Helmholtz Young Researcher Prize for Astroparticle Physics

Supervision of students and postdoctoral fellows

2019 – 2021 Postdoc Anastasia Sokolenko, now at KICP and Fermilab, USA
2016 – 2024 Postdoc Xiaoyong Chu, from 2020 staff member; now at ICTP Beijing, China
2014 – 2017 Postdoc Suchita Kulkarni, now Elise-Richter Fellow at Graz University, Austria
2014 – 2016 Postdoc Andreas Goudelis, now staff at Laboratoire de Physique de Clermont, France

- 2023 – Ph.D. studies, Garance Lankester-Broche, University of Vienna, Austria
- 2023 – Ph.D. studies, Stefan Nellen, University of Vienna, Austria
- 2020 – 2024 Ph.D. studies, Marco Nikolic, University of Vienna, Austria
- 2018 – 2021 Ph.D. studies, Jui-Lin Kuo, University of Vienna, Austria
- 2016 – 2020 Ph.D. studies, Lukas Semmelrock, University of Vienna, Austria
- 2018 Master studies, Lukas Matzi University of Vienna, Austria
- 2018 Master studies, Marco Nikolic University of Vienna, Austria
- 2017 Master studies, Christina Xeni, University of Vienna, Austria
- 2016 Master studies, Lukas Semmelrock, Technical University of Vienna, Austria (*Young Minds Award 2017* by the Austrian Physical Society for his thesis)

Teaching

- 2023 University course on *Theoretical Astroparticle Physics*
4.0 ECTS, 260064 VO, 2023S, University of Vienna, Austria
- 2019 University course on *The search for new physics: from theory to table top experiments*
5.0 ECTS, 442608 VU, 2019W, University of Vienna, Austria
- 2017 University course on *Field Theory Methods in Cosmology and Astroparticle Physics*
2.5 ECTS, 260028 VO, 2017W, University of Vienna, Austria
- 2016, 2018 University course on *Advanced Topics in Particle Physics*
2.5 ECTS, 260020 VO, 2016W & 2018W, University of Vienna, Austria
- 09/2018 Lecturer at the *International School on muon dipole moment and hadronic effects*, Novosibirsk, Russia
- 09/2015 Lecturer at the *DKPI Indian Summer School*, Traunstein, Austria

Commissions of trust

- 2020 – Board Member of the [Austrian Science Fund FWF](#) (Kuratorium)
- 2022 – General Assembly Member of the [Astroparticle Physics European Consortium](#) (APPEC)
- 2019 – Steering Committee Member for the [International School on AstroParticle Physics](#) (ISAPP)
- 2020 Evaluator for the Physical Science Panel for the Czech Academy of Sciences
- 2019 – Reviewer for various funding agencies (ISF, DFG, US-Israel Binational Science Foundation, Norway Research Council)
- 2016 – 2019 Management Committee Member for [EU-COST Action CA 15108](#) “Connecting Insights in Fundamental Physics”
- 2019 Scientific Advisory Committee Member Light Dark Matter Conference 2019
- 2009 – Reviewer for various scientific journals (Science, Phys.Rev.Lett., Phys.Lett.B, Astrophys.J., Nucl.Phys.B, Phys.Rev.C, Phys.Rev.D, JCAP, JHEP, Astropart.Phys., EPJC, SciPost)

Organization of conferences, workshops, and schools

- 2025 Co-Chair, Graduate school, “GRAVITATIONAL WAVES: from theory to detection”, ISAPP - International School on AstroParticle Physics, 2025, Vienna, Austria
- 2024 Chair, “Alpine Particle Physics Symposium (ALPs): Dark Matter”, Obergurgl, Austria
- 2023 LOC, “Topics in Astroparticle and Underground Physics (TAUP)”, Vienna, Austria
- 2024 LOC, “Alpine Particle Physics Symposium (ALPs): anomalies in particle physics”, Obergurgl, Austria
- 2022 LOC, “Interplay between Particle and Astrophysics (IPA)”, Vienna, Austria
- 2022 LOC, “Identification of Dark Matter (IDM)”, Vienna, Austria
- 2021 Chair, Graduate school “DARK MATTER: from theory to detection”, ISAPP - International School on AstroParticle Physics, 2021, Vienna, Austria

2021	<i>LOC</i> , “Alpine LHC Physics Forum (ALPS)” 2021, Obergurgl, Austria
2020	<i>LOC</i> , “Interplay between Particle and Astroparticle Physics” 2020, Vienna, Austria
2020	<i>LOC</i> , “Identification of Dark Matter” 2020, Vienna, Austria
2019	<i>Chair</i> , Erwin Schrödinger Institute Workshop “STRONG-DM” 2019, Vienna, Austria
2018	<i>LOC</i> , “14th Vienna Central European Seminar” 2018, Vienna, Austria
2017	<i>LOC</i> , “Alpine LHC Physics Forum (ALPS)” 2017, Obergurgl
2016	<i>LOC</i> , “12th Vienna Central European Seminar” 2016, Austria
2016	<i>Chair</i> , “LHCski 2016, A first discussion of 13 TeV results,” Austria
2015	<i>Coordinator</i> , Conference “Dark Matter: Astrophysical probes, Laboratory tests,” Munich Institute for Astroparticle Physics, Garching, Germany
2011	<i>Chair</i> , “Unraveling Dark Matter”, Perimeter Institute, Canada

Outreach

2014 –	Public lectures on dark matter at various occasions (VHS, pint of science, Lange Nacht der Forschung, secondary schools); 1-3 per year.
2023	Organized and moderated public lecture by Nobel Prize Laureate Arthur McDonald during TAUP 2023; grand ceremonial hall of the Austrian Academy of Sciences; audience of 300
2017 – 2019	Occasional participation in student-projects with the University of Applied Arts, Vienna
2015 – 2016	Curator of a special exhibition at the Vienna Natural History Museum “Wie Alles Begann: von Quarks, Galaxien und Kollisionen” (more than 100k museum visitors during exhibition period)

Selected Invited Talks

03/2023	Stony Brook University, <i>Dark multipole vectors below the GeV-scale</i> (Invited Talk)
03/2020	University of California Berkeley, <i>Light dark states: phenomenology and detection</i> (Seminar)
02/2020	Kavli Institute for Theoretical Physics, Santa Barbara, <i>BBN: the hot big bang’s first data point</i> (Seminar)
05/2019	RWTH Aachen, <i>The photon as new physics mediator</i> (Seminar)
01/2018	Sorbonne Université, <i>New Opportunities for dark matter direct detection</i> (Seminar)
03/2018	Kavli Institute for Theoretical Physics, Santa Barbara, <i>Signatures of Dark Matter (well) below the GeV-scale</i> (Seminar)
04/2018	University of California Los Angeles, <i>Signatures of Dark Matter (well) below the GeV-scale</i> (Seminar)
10/2018	Brookhaven National Laboratory, <i>Probing sub-GeV dark states with conventional detectors</i> (Invited Talk)
12/2018	CERN, <i>Cosmological and experimental probes of light dark states</i> (Seminar)
11/2017	Weizmann Institute of Science, <i>New channels in existing DM experiments</i> (Invited Talk)
10/2017	Korea Institute for Basic Science, <i>New opportunities for direct detection experiments</i> (Invited Talk)
03/2017	Aspen Physics Center, <i>New Ideas for the Direct Detection of Light Dark Matter</i> (Invited Talk)
06/2016	University of California, Berkeley, <i>How to break a “no-go” theorem in direct detection</i> (Invited Talk)
06/2016	Weizmann Institute of Science, <i>BBN as a probe of new physics</i> (Invited Talk)
11/2015	Korea Institute of Advanced Study, <i>Recent Results on keV-MeV mass particles</i> (Invited Talk)
03/2015	Stanford University, <i>Dark Photon Dark Matter, Dark Axions Dark Energy</i> (Seminar)
03/2014	Lawrence Berkeley National Laboratory, <i>New physics opportunities for neutrino and dark matter experiments</i> (Research Progress Meeting)
05/2013	Princeton Institute for Advanced Study, <i>Dark Photons in Cosmology, Astrophysics, and Experiment</i> (Seminar)