

CURRICULUM VITAE

Date: 23.10.2022

1 Personal details

Name: Syksy Räsänen

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Year of birth and nationality: 1973, Finnish

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2 Education and degrees

- September 2010: adjunct professor (docent, dosentti) in theoretical physics, University of Helsinki.
- September 2002: Ph.D. in theoretical physics, University of Helsinki, Finland.
- December 1999: Master of Science in theoretical physics, University of Helsinki, Finland.

3 Current positions

- Aug. 1 2022–: Senior researcher at Department of Physics, University of Helsinki. (Permanent; from Jan. 1 2015 to Jul. 31 2022 as university researcher.)

4 Previous work experience

- Sep. 1 2018–Jan. 4 2019: Volunteering professor at Department of Physics, Birzeit University.
- Nov. 3 2016–Jan. 10 2017: Visiting professor at Physics Department, Kobe University.
- June 3 2010–Dec. 31 2014: Lecturer at Department of Physics, University of Helsinki.
- May 3 2010–May 28 2010: Visiting researcher at Laboratoire d'Annecy-le-Vieux de Physique Théorique (LAPTH).
- Apr. 16 2010–Apr. 30 2010: Visiting researcher at University of Chicago, Kavli Institute for Cosmological Physics.
- Mar. 1 2010–Apr. 15 2010: Postdoc at Washington University, Physics Department.
- Jan. 2010–Feb. 2010: Visiting researcher at CERN, Department of Physics, Theory Unit.
- Oct. 2007–Dec. 2009: Postdoc at University of Geneva, Department of Theoretical Physics.
- Oct. 2005–Sep. 2007: Postdoc at CERN, Department of Physics, Theory Unit.
- Oct. 2002–Sep. 2005: Postdoc at University of Oxford, Department of Physics, Theoretical physics.

5 Personal research funding, grants, leadership and supervision

- On Jan. 1 2014–Dec. 31 2019, I was the leader of the Helsinki Institute of Physics Theory Project “Cosmology of the Late Universe”, directly supervising 3 postdocs and 5 PhD students (<http://research.hip.fi/hwp/cosmology/>). (Grant value: 110 000 to 120 000 euros per year, for 6 years.)
- For Aug. 1 2017–Dec. 31 2018, I was awarded University of Helsinki Faculty of Science support funding. (Grant value: 30 000 euros.)
- I have supervised 5 Bachelor's theses, 8 Master's theses and 4 PhD theses. I am currently supervising 3 PhD students and 2 Master's students.

6 Teaching experience

From 1996-2000, I was a teaching assistant at the University of Helsinki. In 1996, I helped in the making of *Kvanttimekaniikka II*, the first textbook in Finnish on advanced quantum mechanics. In 2003, I was a tutor at University of Oxford, UK, on mathematical methods and quantum mechanics. In 2007, I lectured the course Structure formation in the universe at the University of Jyväskylä, Finland. In 2008, I gave and supervised theoretical physics problems (travaux pratique de physique theorique IV) at the University of Geneva, and lectured at the Basel-Graz-Tubingen Graduate School, Blaubeuren, Germany. In 2008, I lectured at the IXème Ecole de Cosmologie CNRS at IESC in Cargese, France. In 2009, 2012 and 2015, I lectured at summer schools of the University of Helsinki, Finland. In 2018, I lectured Cosmology at Birzeit University, Palestine. From 2010 to 2022, I have lectured courses Cosmology I, Cosmology II, Basics of relativity, Basics of quantum theory, Mathematical methods for physicists Ia and Ib, General relativity and Physics for Poets at the University of Helsinki, Finland, writing course material for and planning content of the courses.

7 Experience organising scientific meetings

I was a member of the organising committee of Physics Days, Finland's annual physics conference, in 2016 and 2017. In 2012, 2015 and 2018, I co-organised a cosmology summer school for students from the University of Helsinki and the University of Jyväskylä. In 2014, I was a member of the organising committee of Kari Enqvist's 60th birthday conference at the University of Helsinki. In 2011, I was a member of the organising committee of the Inhomogeneous cosmologies workshop held at the University of Jyväskylä.

8 Awards

- In 2014 I was awarded the J.V. Snellman prize by the University of Helsinki for communicating science to the public.
- In 2001 I was awarded the Waldemar von Frenckell Foundation stipend for gifted students.

9 Other key scientific or academic merits

- I have 52 published peer-refereed scientific articles and 5 conference proceedings or other non-refereed scientific articles.
- I have given 44 conference talks and 67 seminars. I have given over 173 popular talks and written 46 popular articles.
- I am a member of the Euclid consortium. From 2015 to 2016, I was the Department of Physics representative in the Faculty of Science communications team at the University of Helsinki. In 2015, I was a member of the Visio400 group tasked with shaping and articulating the vision of the University of Helsinki for the next 25 years. From 2011 to 2014, I was a member of HS-raati, a group of people from culture and science providing topical commentary for Helsingin Sanomat, the largest newspaper in Finland. From 2010 to 2011, I was an editor of the CosmoCoffee forum (<http://cosmocoffee.info>).
- In 2015 and 2019, I served on the evaluation committee for University of Helsinki three-year grants. I have evaluated grant proposals for the Estonian Research Council, National Research Foundation of South Africa, Polish National Science Council and the United Kingdom's Royal Society. I have refereed for 15 scientific journals. I have served as an opponent at two Ph.D. thesis examinations and one Licentiate's thesis examination abroad, and as a preliminary examiner for three Ph.D. theses. I am an approved Master's Thesis examiner in Denmark, and have served as an opponent for one Master's thesis at the Niels Bohr Institute.
- From September 2013, I have written a popular physics blog hosted by the astronomical society Ursa, with more than 270 entries. From November 2007 to May 2013, I wrote a popular physics blog hosted by the magazine Tiede, with more than 150 entries. From 2014 to 2015, I wrote a

monthly science column for Helsingin Sanomat, the largest newspaper in Finland. (The 12 columns are included in the number of popular articles given above.)

- I often give interviews to media about physics, and appear on radio and TV programs and podcasts.
- In 2016, I had a cameo role in the play Automattokaupunki at Teatteri Takomo. In 2013, I co-scripted a circus show about the history of the universe for Tanssiteatteri Hurjaruuth. In 2012 I scripted and presented a planetarium show about cosmology at the science centre Heureka.
- In 2012, I consulted on physics with the game company Remedy Entertainment, in 2012 and 2018 with the publisher Gummerus, and in 2022 with the publishers Siltala and Teos. I have also consulted with Cohu Entertainment about the use of physics in educational games.
- I have often been asked for featured answers to questions on cosmology and particle physics sent by members of the public to different publications and fora, including Tähdet ja avaruus, Helsingin Sanomat and LUMA (<http://www.luma.fi/>).