

# CURRICULUM VITAE

## Full name and date

Name: Kotila, Jenni-Mari Sofia (She/Her)

ORCID: 0000-0001-9207-5824

Date of writing the CV: June 26, 2023

## Education and degrees awarded

- Doctor of Philosophy, University of Jyväskylä, Finland (Major: Theoretical Physics), July 11, 2008, Jyväskylä (Contact information: Department of Physics, P.O. Box 35 (YFL), FI-40014 University of Jyväskylä, Finland, Tel: +358 40 805 4356)
- Master of Philosophy, University of Jyväskylä, Finland (Major: Theoretical Physics), March 26, 2003, Jyväskylä
- Bachelor of Science, University of Jyväskylä, Finland (Major: Physics), August 14, 2002, Jyväskylä
- Matriculation Examination, Vihannin Lukio 30.5.1998, Vihanti, Finland

## Other education and training

- Open University of the University of Jyväskylä, Finland: Statistics SPSS course (2cr) 2023; Introduction to Statistics (2cr) 2021
- University of Jyväskylä, Finland: Information security and data protection training 2022; University pedagogical studies I & II (10 +15cr) 2015-2016; Hyvis - student wellbeing adviser training 2015
- International Association for the Evaluation of Educational Achievement: IDB Analyzer GoToTraining 2020, 2021
- Collaborative Institutional Training Initiative (CITI PROGRAM): Physical Science Responsible Conduct of Research course 2016
- Nyyti ry – student life coach training 2016
- Yale University, USA: Scientific teaching fellows course 2014; Women in Science at Yale mentoring training 2013

## Linguistic skills

- Finnish: native speaker
- English: fluent, second working language
- Swedish: good working knowledge
- German: basic knowledge

## Current position

- Academy Research Fellow 09/2018-08/2023, University of Jyväskylä, Finland
- Research Associate 10/2016-, Yale University, CT USA

## Previous work experience

- University of Jyväskylä, Finland:
  - Project Researcher 01/2018-08/2018
  - Senior Researcher 09/2016-12/2017
  - Postdoctoral Researcher 09/2013-08/2016
- Yale University, CT USA:
  - Postdoctoral Fellow, 09/2013-09/2016
  - Postdoctoral Associate, 10/2010-08/2013
- University of Jyväskylä, Finland:
  - Postdoctoral Researcher/Assistant 08/2008-12/2008
  - Researcher 04/2003-07/2008
  - Research assistant 01/2003-03/2003, 05/2002-07/2002
  - Trainee, 06/2001-09/2001
  - Part-time instructor: 2003, 2005, 2006

## Research funding, leadership, and collaboration

### Principal investigator of following funded projects:

- 2018-2023 Academy Research Fellow grant, Funder: Academy of Finland 438 874 €
- 2021-2023 Academy Research Fellow: research costs, Funder: Academy of Finland, 159 969 €
- 2018-2022 Academy Research Fellow: research costs, Funder: Academy of Finland, 209 987 €
- 2013-2016 Postdoctoral Researcher grant, Funder: Academy of Finland 260 910 €
- 2016, 2012 Expense grant, Funder: The Väisälä Foundation 4000 €
- 2012 Expense grant, Funder: The Emil Aaltonen Foundation 5000 €
- 2004-2005 University of Jyväskylä, Rector's grant for researcher student, full-time position, Funder: University of Jyväskylä

### Member of research team of following funded projects:

- 2022-2027 PISA 2025, named researcher in application, PI Arto Ahonen, Funder: Ministry of Education and Culture, Finland
- 2022-2023 PARVI- Study of final assessment reform, named researcher in application, PI Juhani Rautopuro, Funder: Ministry of Education and Culture, Finland
- 2021-2025 eTIMSS2023, named researcher in application, PI Jouni Vettenranta, Funder: Ministry of Education and Culture, Finland
- 2018-2024 PISA 2022, PI Arto Ahonen, Funder: Ministry of Education and Culture, Finland
- 2018-2022 Academy Project, named researcher in application, PI Jouni Suhonen, Funder: Academy of Finland
- 2018-2020 eTIMSS2019, PI Jouni Vettenranta, Funder: Ministry of Education and Culture, Finland
- 2018-2020 PISA 2018, PI Arto Ahonen, Funder: Ministry of Education and Culture, Finland
- 2010-2013 Nuclear Theory (Yale), PI Francesco Iachello, Funder: Department of Energy, USA

### International collaboration:

- Cooperation with several international institutions such as, MIT (USA), Yale (USA), INFN (ITA), TU Dresden (DEU), TU Darmstadt (DEU), UCL (GBR), TRIUMF (CAN); collaborations CUPID-Mo, CUPID-0; and organizations, IEA, OECD
- Collaboration member of NUMEN (<https://web.infn.it/NUMEN/index.php/it/>) and ACCESS (<https://sites.google.com/gssi.it/access>)

### Supervision of students and postdoctoral researchers:

- Supervised undergraduate students: 1(pri), graduate students: 1(pri) 3(sec), postdocs: 1
- Mentoring: Interdisciplinary peer mentoring group adviser 2016-2018, University of Jyväskylä student wellbeing adviser (Staff members, who have been selected and trained to support the wellbeing of students) 2015-2017, Women in Science at Yale postdoc mentor 2013-2016

### Publications

- Number of publications: 90 (Full list of publications attached)
- Total number of citations: 2720 (Google Scholar), 1841 (Scopus), 1618 (Web of Science)
- Web of Science highly cited articles: 2
- Five most cited publications:
  - Phase-space factors for double-beta decay, J. Kotila and F. Iachello, PRC85, 034316 (2012). Times Cited: Scopus 456 (WEOS Highly cited paper), Google scholar 694
  - Nuclear matrix elements for double-beta decay, J. Barea, J. Kotila, and F. Iachello, PRC87, 014315 (2013). Times Cited: Scopus 304, Google scholar 444
  - $0\nu\beta\beta$  and  $2\nu\beta\beta$  nuclear matrix elements in the interacting boson model with isospin restoration, J. Barea, J. Kotila, and F. Iachello, PRC91, 034304 (2015). Times Cited: Scopus 264 (WEOS Highly cited paper), Google scholar 395
  - Limits on Neutrino Masses from Neutrinoless Double-beta Decay, J. Barea, J. Kotila, and F. Iachello, PRL109, 042501 (2012). Times Cited: Scopus 141, Google scholar 187
  - Phase space factors for  $\beta^+\beta^+$  decay and competing modes of double- $\beta$  decay, J. Kotila, F. Iachello, PRC87, 024313 (2013). Times Cited: Scopus 58, Google scholar 73

### Phd thesis reviewed:

- Aysegül Ertopak, Experimental Studies of the Neutron Deficient Atomic Nuclei  $^{94}\text{Ru}$ ,  $^{95}\text{Rh}$  and  $^{172}\text{Pt}$  via their Electromagnetic Properties (2020), KTH Royal Institute of Technology, Sweden, member of evaluation committee
- Ruslan Magana Vsevolodovna, Transfer Reactions, Neutrinoless double beta decay and Double Charge Exchange (2018), Università Degli Studi di Genova, Italy, external referee

### Peer-reviewing activities:

- Funding applications: Regular FONDECYT National Projects Competition 2021, Chile; Czech Science Foundation 2023, Czech Republic
- Scientific publications: Physical Review Letters, Physical Review D, Physical Review C, Physica Scripta, Journal of Physics G: Nuclear and Particle Physics, Nuclear Physics and Atomic

Energy, Advances in High Energy Physics, Frontiers, Morressier, Universe, Brazilian Journal of Physics

3 most recent international invited lectures:

- J. Kotila, “Double beta decay: standard mass mechanism and beyond”, Neutrinos Electro-Weak interactions and Symmetries colloquim, Osaka Japan (zoom), 14.12.2022
- J. Kotila, “Double Beta Decay and Neutrino mass”, 13th International Spring Seminar on Nuclear Physics “Perspective and Challenges in Nuclear Structure after 70 Years of Shell Model”, Ischia Italy 20.5.2022
- J. Kotila, “Nuclear matrix element calculations and perspectives”, Neutrino Properties Topical Group for Snowmass 2021, zoom, 22.7.2020

Teaching experience:

- 2003-2008, 2014-2017 Instructor of several undergraduate and graduate courses such as Flying start in Physics (2cr), Derivatives and Integrals, (3cr), Thermodynamics and optics (5cr), Modern Physics (5cr), Mechanics (5cr), Electricity (5cr), Electromagnetism (5cr), Introductory Physics I (9cr), Introductory Physics II (11cr), Nuclear Physics II (9cr)

Other academic merits

- Organization of international conferences
  - Hadron 2023, Genova, Italy 6-9.6.2023: Session convener: Hadrons and physics Beyond the standard model
  - INPC 2022, Cape Town, South Africa 11-16.2022: Session convener: Science education and outreach
  - Neutrinos and Dark Matter 2015, Jyväskylä, Finland 1-6.6 2015: Part of local organizing committee
- External science expert in projects: Educluster Finland high school final examination 2020-2022, LUMA2020 2019-2020
- Memberships in Professional Societies: European Physical Society; Finnish Physical Society, FIN; National Postdoctoral Association, USA; Women In Science At Yale, USA; Finnish Association for Mathematicians, Physicists, and Computer Scientists, FIN; Academic Engineers and Architects in Finland, FIN

Scientific and societal impact of research

Promoting open science and research, research communication:

- Creator and administrator of webpage: nucleartheory.yale.edu
- Figure preparation and pre-editorial work on assembling second edition of the book: Lie Algebras and Applications by Francesco Iachello (2014).
- Part of organizing committee of the open house events ILLUMINATE JYFL 9/2014, Researchers’ night 9/2016 and 9/2017