

CURRICULUM VITAE – DANIEL MIKKOLA

PERSONAL INFORMATION

Daniel Mikkola
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EDUCATION

PhD in Astrophysics Title : Galactic Dynamics in the Gaia era *October 2017-Present*
Lund University
Dept. of Astronomy and Theoretical Physics
Supervisor : David Hobbs, david.hobbs@astro.lu.se
Co-supervisor : Paul McMillan, paul@astro.lu.se
Description : Through a combination of numerical N-body simulations and analysis of Gaia astrometric data along with other complementary surveys, I will attempt to answer questions that have important consequences for our understanding of the formation and evolution of our Galaxy.

Masters Degree *August 2015-August 2017*
Year 1, Aarhus University
Major : Astrophysics/Astronomy
Year 2, Lund University
Major : Astrophysics/Astronomy

Bachelors Degree *September 2012-June 2015*
Lund University
Major : Astrophysics/Astronomy

RESEARCH

Master thesis Title : [Radial migration of stars, measured in \$N\$ -body simulations](#)
Supervisor : Paul McMillan, paul@astro.lu.se
Description : Using NEMO I simulated and integrated disc galaxies to quantify and analyze radial migration and how it varies with various parameters such as height above the midplane z , spiral arm number and strength, and dark matter (DM) halo. Through this I provided an explanation to how DM-to-baryon fraction changes spiral arm formation and therefore extent of radial migration.

Bachelor thesis Title : [Formation of super-Earths via pebble accretion onto planetesimals](#)
Supervisor : Anders Johansen, anders@astro.lu.se
Description : Using my supervisor's code PAOPAP I simulated Super-Earth formation at close orbital radii. The formation takes place by the accretion of mm-cm sized pebbles in the protoplanetary disk. The aim was to be able to form planets similar to those observed by the Kepler telescope which are close-in orbiting Super-Earths. Planets of appropriate masses were produced.

PUBLIC OUTREACH

Physics and Lasershow *Mars 2013-Present*
Contacts : [Johan Zetterberg](#), [Per-Olof Zetterberg](#)

- An educational science show aimed at promoting science among younger students. See more : [website](#)
- As part of the show I have been invited to perform at multiple science festivals and conferences, allowing me to promote science to a broad audience.

SKILLS

Operating systems : Windows, Ubuntu, openSUSE, macOS
Programming languages : Python, MATLAB, L^AT_EX.
Office softwares : Microsoft Office, Open Office, LaTeX, DocBook.
Driver's license Swedish type B
Languages : Swedish, English, Danish

EDUCATIONAL INVOLVEMENT

LUNA : Union board *Summer 2013- Summer 2015*
Contact : ordf@luna.lu.se

- LUNA is the student union for the faculty of science at Lund University.

CONFERENCES & EVENTS	• The science of Gaia and future challenges, Lund	2017
	• Vetenskapsfestivalen, Gothenburg	<i>Annually, 2013-2017</i>
	• Culture Night	<i>Annually, 2013-2017</i>
	• SciFest, Uppsala	2017
	• Science City, Växjö	2016
	• Festival Znanosti, Slovenia	2016
	• Open Science Days, Montenegro	2016
	• Innocarnivalen, Malmö	2014
	• Nordic Physics Days	2013