

**Curriculum Vitae of Prof. Dr. Amina Helmi**  
Kapteyn Astronomical Institute  
University of Groningen  
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e-mail: ahelmi@astro.rug.nl

Date and place of birth: 6/10/1970, Bahia Blanca (Argentina)  
Nationality: Argentina/Netherlands

**Education**

PhD in Astronomy (2000), The formation of the Galactic halo Leiden University (“Cum Laude”),  
supervisors: P.T. de Zeeuw and S.D.M. White  
MSc in Astronomy (1994), specialization in Theoretical Physics, University of La Plata (9.94/10)

**Work experience since completing PhD**

Professor of Dynamics, Structure and Evolution of the Milky Way, Univ. of Groningen	2003 – to-date
NOVA Postdoctoral Fellow, Univ. of Utrecht:	2002 – 2003
Postdoctoral Fellow, Max Planck Inst. for Astrophysics:	2001 – 2002
Postdoctoral Fellow, University of La Plata:	2000

**Research Interests:** Dynamics, structure and evolution of the Milky Way and its satellites; dark matter

**Honours and prizes**

Dirk Brouwer Career Award, 2021  
Knight in the Order of the Dutch Lion, 2021  
Lodewijk Woltjer Lecture, 2021  
Merle Kingsley Distinguished Visitor at Caltech, 2020  
Boris Garfinkel Lecture, Yale, 2020  
Niels-Bohr Lecture, Copenhagen, 2020  
Spinoza Prize, 2019  
Suffrage Science Award, Physical Sciences and Engineering, 2019  
Member, Royal Netherlands Academy of Sciences (KNAW, elected in 2017)  
Member, Royal Holland Society of Sciences and Humanities (KHMW, elected in 2016)  
VICI research grant (Innovation Scheme, NWO) 2015  
Pastoor Schmeits prize, 2010  
ERC Starting Grant (European Science Foundation) 2009  
Member, The Young Academy, Royal Netherlands Academy of Sciences (elected in 2007)  
Member, International Astronomical Union  
Christiaan Huygens Prize, 2004  
VIDI research grant (Innovation Scheme, NWO) 2003  
CJ Kok prize, University of Leiden, 2000  
Amelia Earhart Fellowship Award, 1995 and 1997

**Academic staff supervised**

*Former PhD students:* H. Koppelman (2020); J. Hagen (2020); P. van Oirschot (2019), H. Tian (2017), T. K. Starkenburg (2016), J. T. Buist (2015), G. Monari (2014), M. Breddels (2013), C. Vera-Ciro (2013), E. Starkenburg (2011, with E. Tolstoy), F. Gomez (2010), Y. S. Li (2009), A. Villalobos (2009), G. Battaglia (2007, with E. Tolstoy), M. Williams (2008, Australia, co-supervision); P. Re-Fiorentin (2005, Italy, co-supervision)  
*Current PhD students:* O. Koop (2024); E. Dodd (2024)  
*Former Postdocs:* D. Massari (2017 – 2019), L. Posti (2016 – 2018), J. Veljanoski (2014-2018), M. Breddels (2013-2018), S. Jin (2011-2014), R. Sanderson (2011-2014), M. T. Antoja (2010-2012), L. Sales (2007-2010), M. Smith (2004-2007), E. Ripamonti (2003-2006, with E. Tolstoy)  
*Current Postdocs:* E. Balbinot (2018 – 2021), S. Khanna (2019 – 2021), T. Matsuno (2020-2023), T. Ruiz-Lara (2020-2021)

## Research output

Author or co-author of 210 refereed publications in international journals.

Author or co-author of more than 130 conference proceedings and other academic publications.

Approximately 29,600 citations according to ADS – H-index: 77

## Teaching experience

*Lecturer:* Physics of Galaxies, Calculus and Algebra for engineers, Statistical and Numerical Methods, Numerical Methods, Capita Selecta on the Milky Way, Galaxy Formation and Evolution, Galactic Dynamics

*Bachelor students supervised:* H. Raetzer (ongoing), T. Mollenkramer (2020); H. Woudenberg (2019), R. Bos (2019), E. Wempe (2018), D. Koot (2017), S. van Eijk (2017), T. Heldeweg (2016), C. Hesp (2015); J. Hartke (2015), J. Heit (2013), J. Ruwen (2009), M. Blauw (2009), M. Breddels (2007)

*MSc students supervised:* T. van Essen (ongoing), R. Koet (2020), B. Roelenga (2018), T. Virginiflosia (2017), H. Koppelman (2016), J. Hagen (2015), T. Starkenburg (2011), E. Starkenburg (2007), F. Lugt (2004)

## Invited reviews given at Conferences in the last 5 years

2020: APS Plenary (Washington)

2019: ESLAB (Noordwijk), IAU Symposium (Shanghai), Farewell S. White (Garching)

2018: EWASS (Liverpool), NAC (Groningen), Spanish Astronomical Society (Salamanca)

2017: 'Rediscovering our Galaxy' (Potsdam), 'The science of Gaia and future challenges' (Lund), 'Reaching New Heights in Astronomy' (ESO, Munich)

2015: 'ESO in the 2020s' (Munich); 'Dark matter in the Galaxy' (Amsterdam); 'Satellites and stellar streams' (Santiago); 'The New Milky Way' (Munich); Plenary talk at EWASS (Tenerife); 'IAU Symposium 319: The general assembly of stellar halos' (Hawaii); Division meeting H on The Milky Way in the era of Gaia (Hawaii); 'ReSolving Galaxies in The Era of Extremely Large Telescopes' (Monterrey)

*Total number of invited reviews given since 2003: 67*

## Departmental Colloquia last 5 years

Cordoba 2015; Göttingen 2016; Amsterdam 2016; Dwingeloo 2017; Groningen 2018; Utrecht 2018; Heidelberg 2018; Munich 2018; New York Big Apple Colloquium 2018; Harvard 2019; TNO Delft 2019; Madrid (ESAC) 2019; Copenhagen (2020); Aarhus (2020) (and pending invitations to Liverpool, Cambridge, Lund, Leuven, Geneva)

*Total number of colloquia given since 2003: 26*

## International academic activities (most important)

*Committees:*

- Scientific Member, ESO Council for the Netherlands, 2018 –
- Senior Advisory Committee 'Voyage 2050', Scientific Director ESA, 2019 –
- Co-Chair, ESO's OPC, Galaxies panel, 2012 – 2013
- Member, Science Advisory Group to ING director, 2012 – 2015
- Member, Astronomy Working Group, ESA, 2007 – 2010
- Member, ESO/ESA Working Group on the Milky Way, 2007 -2008
- Member, ASTRONET European Science Vision working group, panel B (Galaxies)

*Projects:*

- PI of the Low Resolution Halo Key Science Survey, and member of the Science Steering Committee, 4MOST project, 2011 – to-date
- Lead of "Validation of multi-D Gaia data" work packages, CU9, Gaia, 2013 – to-date
- Member, Science team of WEAVE project, 2012 – to-date
- Member, RAVE Executive Board, 2003 – to-date
- Co-lead, Milky Way Science Working Group, Euclid Mission, 2011 – 2013
- Member, 'Chemical Tagging working group' (Gaia Research for European Astronomy Training), 2007 – 2009

*Other:*

- Co-organizer of more than 20 international meetings, including SOC of 1 IAU JD and 3 IAU Symposia, and a Royal Society/KNAW/Chinese Academy of Sciences "Frontiers in Science" workshop in China
- Referee for grant allocation for UK, US, Canada, Germany, Japan, Argentina, Chile, Sweden, Germany, Hungary, ERC St. and Advanced Grants

- Referee of Nature, Science, ApJ, ApJL, AJ, MNRAS, A&A, PASA, PRD, PRL, Phys. Lett. A & B, JCAP
- Referee of PhD thesis in Oxford, Leiden, Groningen, Potsdam, Bologna

### National activities (most important)

- Scientific Director NOVA (Netherlands Top Research School for Astronomy), 2022 -
- Deputy Scientific Director NOVA (Netherlands Top Research School for Astronomy), 2019–2020
- Chair NOVA Research Committee, 2017 – 2018
- Research Coordinator of Network 1: “Cosmology and Galaxies” for NOVA, 2013 – 2018
- Selection Committee new members KNAW (Domain Exact and Natural Sciences): 2018–
- Member, Grant Assessment Committee for Astronomy, NWO: 2004 –
- Jury member of the ‘Nationale Wetenschapsagenda’, KNAW: 2015

#### Local

- Member of the University Committee for Academic Practice, representative of the Faculty of Mathematics and Natural Sciences of the University of Groningen (2014 – 2016)
- Rosalind Franklin selection committee, Faculty of Mathematics and Natural Sciences of the University of Groningen (2011)
- Assessment committee for promotion from Assistant to Associate Professor, Faculty of Mathematics and Natural Sciences of the University of Groningen (2015 – 2018)

### Grants, scholarships and prizes

Scholarship/Grant/ Prize as PI	Amount	Year of award
Spinoza prize	2,500,000 EUR	2019
NWO-M instrumentation grant	252,000 EUR	2017
VICI research grant	1,500,000 EUR	2015
NOVA research grant	200,000 EUR	2013
NOVA instrumentation grant	180,000 EUR	2013
Pastoor Schmeits prize	N.A.	2010
ERC Starting Grant	1,600,000 EUR	2009
NOVA research grant	200,000 EUR	2009
NWO Open Competition	100,000 EUR	2005
VIDI research grant	600,000 EUR	2003
Christiaan Huygens prize	N.A.	2003
CJ Kok prize	N.A.	2000
Amelia Earhart Fellowship	6,000 USD	1995 and 1997
<i>Subtotal: 12</i>	<i>7,138,000 EUR</i>	
Scholarship/Grant/Prize as Co-PI		
NWO-M instrumentation	960,000 EUR	2013
NOVA Instrumentation	500,000 EUR	2013
NOVA research grant	200,000 EUR	2008
NOVA instrumentation grant	200,000 EUR	2008
NWO STARE program	500,000 EUR	2006
NWO Open Competition	200,000 EUR	2003
<i>Subtotal: 6</i>	<i>2,560,000 EUR</i>	

### Outreach activities

(incomplete summary of the last 3 years)

- Regular appearances in the media:
  - Personal interviews in newspapers/magazines: El Pais, El Mundo, Clarin, NRC, Dagblad van het Noorden, Der Spiegel, de Volkskrant, Broerstraat 5, Nederlandse Tijdschrift voor de Natuurkunde, Sky and Telescope, Scientific American, Elsevier Weekblad
  - TV: Nieuwsuur (NPO2), OOG TV (Groningen), NHK Cosmic Frontier Next (Japan), BBC
  - Several podcasts and videos (e.g. wetenschap.nu; ESA TV)
  - Radio: Nieuws en co (NPO1), BNR, Onderweg naar morgen (NPO1), OOG Radio, BBC
- Public Lectures: Fundación BBVA (Madrid), KNAW, KNG, Gala van de Astronomie, Paradiso