### Dr. S. (Selma) E. de Mink

Associate Professor in Astrophysics

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#### INTERESTS (IN NO PARTICULAR ORDER)

Stellar Physics, Stellar evolution, Stellar evolution under extreme conditions

Gravitational Wave Astrophysics, Astrophysics of their progenitors

Stellar Transients, Progenitors of Supernovae and Gamma-ray bursts

Interacting binary systems, Mass transfer, Accretion, Binary mergers, Common envelope evolution

Nucleosynthesis, Abundances, Chemical Enrichment

Stellar Interiors, Internal mixing processes, Asteroseismology

Spectral synthesis, Radiative and Mechanical Stellar feedback Radiative

Stellar populations (nearby and at high redshift)

Applied statistics and machine learning for inference and population modelling

Diversity in Academia, Participation of Women in Theoretical and Computational Astrophysics

#### RESEARCH POSITIONS

2018 - now	Associate Professor, University of Amsterdam, NL
	<ul> <li>PI of VIDI and Aspasia grant BinWaves (2018-2023)</li> </ul>
	PI of the ERC starting grant BinCosmos (2017-2022)
2014 - 2018	MacGillavry Assistant Professor, University of Amsterdam, NL
	Marie Curie Incoming Fellowship (2015-2017)
2013 - 2014	Einstein & Princeton Lyman Spitzer Fellow (NASA prize fellowship, independent research)
	California Institute for Technology & Carnegie Observatories, Pasadena, CA, USA
2010 - 2013	Hubble postdoctoral Fellow (NASA prize fellowship, independent research)
	Space Telescope Science Institute, Baltimore, MD, USA
2010	Argelander Postdoctoral Fellow
	Institute for Astronomy, University of Bonn, Germany
2006-2010	PhD Student, Utrecht University, The Netherlands
2004	IAC summer internship, Instituto d'Astrofíscia de Canarias, Spain

#### VISTING RESEARCH POSITIONS

2017, 2016	<b>Short term visitor,</b> Kavli Institute for Theoretical Physics, Santa Barbara, CA, USA
2015	Short term visitor, Center for Astrophysics, Harvard University, Cambridge, MA, USA
2013 - 2014	Visiting Associate, California Institute for Technology (Caltech), Pasadena, CA, USA
2010 - 2013	Visiting Associate, Johns Hopkins University, Baltimore, MD, USA

#### **EDUCATION**

2006-2010	PhD, Astrophysics, Utrecht University, NL, Awarded April 12, 2010	Cum Laude
	Thesis: Stellar evolution at low metallicity, Supervisor: Dr. O.R. Pols	
2003-2005	MSc, Astrophysics, Utrecht University, NL, Awarded Oct. 24 2005	Cum Laude
2000-2004	BSc, Mathematics, Utrecht University, NL, Awarded Oct. 31 2005	Cum Laude
2000-2003	BSc, Physics, Utrecht University, NL, Awarded Oct. 24 2005	Cum Laude

2019	Elected as Member of the Young Scientific Academy, the Netherlands	
018	Aspasia Grant Laureate, awarded by Netherlands Science Foundation (NWO)	100 <b>k€</b>
017	Vidi laureate, awarded by Netherlands Science Foundation (NWO)	800 <b>k€</b>
017	MERAC Prize in Theoretical Astrophysics 2017, European Astronomical Socie	ty
2017	Beller Lectureship, awarded by American Physical Society	
2016	ERC starting grant, awarded by European Research Council	1,900 k€
016	Nominated for New Scientist Science Talent 2016, Dutch and Flemish University	ties
2015	Top grant laureate, Netherlands Science Foundation (NWO)	220 k€
2015	Marie Curie Fellowship, awarded by European Council	166 k€
014	MacGillavry Fellowship, Amsterdam Univ. (estimated)	450 k€
013	Princeton Lyman J. Spitzer Fellowship, awarded by Princeton University	180 k€
2013	Einstein Fellowship, awarded by NASA	266 k€
2010	Hubble Fellowship, awarded by NASA	260 k€
004	IAC summer Fellowship, Instituto d'Astrofíscia de Canarias, Spain	
000	International Physics Olympiad, Honorable Mention, Leicester UK	

#### SELECTED PUBLICATIONS AND CITATIONS STATS

Papers with > 100 citations:	14	Total number of refereed papers	>~90
Papers with $> 50$ citations:	27	Total number of publications	>~160
Total number of citations:	>5078	Hirsch factor	35

### Selection of Highest cited papers as 1st, 2nd or 3rd author (abbreviated titles)

	8 · · · · · · · · · · · · · · · · · · ·
>647 citations	Sana & de Mink et al. (2012), Science 337, 444 "Binary interaction dominates evolution of massive stars"
>377 citations	Brott & de Mink et al. (2011), A&A 530, 115 "Grids of Rotating massive main-sequence stars"
>284 citations	De Mink et al. (2009) A&A, 507, 1 "Massive binaries as source of abundance anomalies in glob. clusters"
>191 citation	De Mink et al. (2013) ApJ 764, 166, "Rotation Rates of Massive Stars: The Role of Binary Interaction"
>187 citations	Sana, de Koter & de Mink et al. 2013, A&A 550, 107, "Multiplicity of the Tarantula O-type stars"
>176 citations	Bastian, Lamers & de Mink et al. MNRAS, 436, 2398, "Early disc accretion & glob. cluster abundances"
>140 citation	Mandel & de Mink (2016) MNRAS, 458, "Merging binary BHs through chem. homogeneous evol."
>138 citations	De Mink et al. (2009) A&A 497, 243, "Rotational mixing in detached short-period massive binaries."
>130 citations	De Mink et al. (2014) ApJ, 782, 7, "Incidence of Mergers and Mass Gainers among Massive Stars"
>117 citations	Bastian & de Mink (2009) MNRAS, 398, 11, "Effect of rotation on colour-magnitude diagrams"
>100 citation	De Mink & Mandel (2016), MNRAS, 460, "LIGO binary black holes through chem. hom. channel"
>100 citation	Glebbeek, Gaburov, de Mink et al. A&A, "Evolution of runaway stellar collision products"
>78 citations	De Mink et al (2007), A&A, 469,1181 "Efficiency of mass transfer in massive close binaries."
>74 citation	De Mink & Belczynski (2015), ApJ, 814, 58, "Merger Rates of Double Neutron Stars and Black Holes"
>60 citations	Claeys & de Mink et al. (2011), A&A, 528, 131, "Binary progenitor models of type IIb supernovae"

### Selection of recent papers (including those lead by a PhD student I supervised directly (marked with \*)

> 40 citations	Zapartas* & de Mink et al. (2017b) A&A "Delay-time distribution of core-collapse supernovae"
> 30 citations	Götberg*, de Mink & Groh (2017) A&A "Ionizing spectra stripped binary stars"
> 29 citations	De Mink & King (2017) ApJ "Electromagnetic Signals Following Stellar-mass Black Hole Mergers"
> 18 citations	Renzo* et al. (2017) A&A "Effects of wind mass loss algorithms on the evolution of massive stars"
> 15 citations	Götberg* & de Mink et al. (2018) A&A "Unifying Subdwarfs and Wolf-Rayet stars"
> 12 citations	Renzo*, Zapartas* & de Mink et al. (2018), subm. "Walkaway and Runaway stars"
> 10 citations	Zapartas* & de Mink et al. (2017a) A&A "Companions for Stripped-envelope Supernovae"
< 10	Schootemeijer,* Götberg*, de Mink et al. (2018) A&A, "Overluminous subbdwarf in Phi Persei
< 10	Renzo* & de Mink et al. (2019) MNRAS letter "Gaia/HST Astrometry of a 150 Msun runaway star" <
< 10	Götberg* & de Mink et al. (2019) subm. "Impact of stripped stars on Integrated spectra"

Citations based on the NASA/ADS database, updated Feb 9, 2019.

### INVITED AND CONTRIBUTED TALKS (SELECTION, FOR COLLOQUIA SEE BELOW)

2019 Jul.	Scheduled, Invited Plenary Talk, Royal Astronomical Society National Astronomy Meeting, UK
2019 May	Scheduled Invited review FOE Supernova conference USA

2019 April	Scheduled, Invited review, Spring symposium Death of Massive Stars, Baltimore, Md, USA
2018 Sept.	Invited Plenary Talk, Physics of stellar feedback, Leibniz Inst. for Astrop. Potsdam, Germany
2018 July	Invited Talk, Diversity in Astronomy, Dark Cosmology Center, Copenhagen, Denmark
2018 July	Invited Review, Unsolved Problems in Astrophysics and Cosmology, Budapest, Hungary
2018, June	Invited Review, Ultra Luminous X-ray sources, Madrid, Spain
2018 May	Invited Review, Supernovae and their interaction with the ISM, Stockholm, Sweden
2018, May	Invited Talk, Sackler Conference on Gravitational waves, Cambridge, MA, USA
2018, April 5	Invited Talk, EWASS Gamma-ray bursts, UK
	Plenary Talk, Finish Physics Days, Turku, Finland,
2018, Jan 23	Invited Talk, Physics days, Veldhoven, The Netherlands
2017 Nov 21	Invited Talk, Flatiron meeting on binary neutron star mergers, NY, USA
2017 Sept, 11	Invited Review, Progenitors of Gravitational Wave sources, Royal Society, UK
2017 June, 28	Invited Review, Gravitational wave Physics, Paris, France
2017 June, 27	MERAC prize lecture, Invited talk, European Astronomical Society, Prague, CR
2017 June, 1	Invited Review, Transients and the LSST revolution, Chicago, USA
2017 April, 18	Invited Participant/panel member, Cas A topical workshop, Princeton, NJ, USA
2017 Feb, 27	Invited Review, Strong Grav workshop, Oxford, MI, USA
2017 Jan, 30	Beller Prize Lecture, Invited talk, American Physical Society meeting, DC, USA
2017 Jan, 30 2016 Oct. 20	Invited Talk, Emission line galaxies at high redshift, Lorentz Center Workshop, Leiden, NL
2016 Sep. 21	Invited Talk, Year opening of the Department of physics and astrophysics, Amsterdam, NL
2016 Sep. 21 2016 Sep. 13	Invited Review Gravitational wave progenitors, MIAPP, Munich, Germany
2016 Sep. 13	Plenary Talk Invited, Astronomische Gesellschaft, Bochum Germany
2016 Sep. 13 2016 Aug.	Invited Review, Gravitational wave progenitors Gravitational Waves in Paris, France,
2016 Aug.	Invited Review, Gravitational wave progrintors Gravitational waves in Fairs, France,  Invited Review, Binary evolution Stars on the run, Bamberg, Germany
2016 Aug.	Invited Talk, Astrophysics of the first gravitational waves, KITP, Santa Barbara, CA, USA
2016 July 26	Invited Talk Conference Binaries, Cambridge, UK
2016 July 7	Invited Talk, Conference of European society EWASS, Athens, Greece
2016 June 1	Invited Talk, Bridging the Gap, Supernova Royal Society Meeting UK
2016 May 17	Invited Talk, Bridging the Gap, Supernova Royal Society Meeting UK  Invited Talk, Sackler Conference Transients, Harvard, Cambridge MA, USA
2016 April 7	Invited Talk, Massive Stars and Star formation conference, Gainesville Florida
2016 Feb. 23	Invited Talk, Massive stars and star formation conference, Gamesvine Profida  Invited Talk, DARK Cosmology Center Feedback Workshop, Copenhagen, Denmark
2015 Aug.	Invited Talk, General Assembly, Focus meeting Galaxies and Stellar populations, Honolulu, HI, USA
2015 Aug. 2015 Aug.	Invited Talk, General Assembly, Focus meeting Stellar Explosions, Honolulu, HI, USA
2015 May 11	Invited Talk, Gravitational wave meeting Cardiff, UK
2015 May 11 2015 May 6	Contributed talk Gaia-ESO survey, Brussels, Belgium
2015, April 21	Invited talk, 25th years of Hubble celebration meeting, STScI, Baltimore, Md, USA
2015, April 21 2015, Jan 23	Contributed talk, Aspen meeting on Black holes, CO, USA
2014 Oct 8	Invited Talk, Time Domain Astrophysics with the Giant Magellan Telescope, Washington DC, USA
2014 Oct 8 2014 Aug	Invited Review, Supernova in the local universe, Coffs Harbour, New South Wales, Australia
2014 Aug 2014 Aug	Invited Talk, Gravitational Wave Astrophysics at COSPAR assembly, Moscow, Russia
2014 July	Invited Faik, Gravitational wave Astrophysics at COSFAIK assembly, Moscow, Russia  Invited Keynote Talk, A Critical Look at Globular Cluster Formation Theories, Sexten, Italy
2014 March	Invited Talk, Stellar Tango at the Rockies, Lake Louise, Alberta, Canada
2013 Nov	Invited Talk, Stehar Transfert Factory, Science meeting, Santa Barbara, CA, USA
2013 Nov 2013 Oct	Invited Talk, Palomar Transient Factory, Science meeting, Santa Barbara, CA, USA Invited Talk, Einstein Fellow Symposium, Harvard, Cambridge, MA, USA
	Invited Talk, Einstein Fellow Symposium, Harvard, Cambridge, MA, USA Invited Talk, Palomar Transient Factory Sky House meeting, Santa Barbara, CA, USA
2013 Oct 2013 Oct	Invited Talk, Palomar Transient Factory Sky House meeting, Santa Barbara, CA, USA Invited Talk, Massive Stars from alpha to omega, Rhodes, Greece
2013 Oct 2013 Sep	Invited Talk, Massive stars from alpha to omega, Knodes, Greece Invited Seminar, TAPIR center for theoretical astrophysics, California Institute of Technology, CA, USA
2013 Sep 2013 March	Invited Talk, Hubble Fellow Symposium, STScI, Baltimore, MD, USA
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2012 Oct	Contributed Talk, Outstanding problems in Massive Star Research, St Paul, MN, USA
2012 Oct	Contributed Talk, 30 Dor, the starburst next door, STScI, Baltimore, MD, USA
2012, July	Invited Talk, Aspen workshop on Massive stars and Gamma-ray bursts, Aspen, CO, USA
2011 Dec	Invited Talk, Lorentz Center Workshop Modelling Dense Stellar systems, Leiden, NL
2011 Sept	Invited Seminar, Stellar rotation: nature or nurture, KITP, Santa Barbara, CA, USA
2011 Sept	Invited Talk, CIERA inaugural meeting, Fellows at the Frontier of Science, Northwestern, USA
2011 July	Contributed Long talk, Conference in honor of A. Moffat, Canada
2011 March	Invited Talk, Hubble Fellow symposium, Spitzer Science Center, Pasadena, CA, USA

2010 July	Contributed Talk, meeting of the astronomische gesellschaft, Bonn, Germany
2010 July	Contributed Talk, 39th Liege Meeting, multi-wavelength view of massive stars, Liege, Belgium
2010 June	Contributed Talk, Binary star meeting, Mykonos, Greece
2010 May	Contributed Talk, STScI May Symposium, Baltimore, MD, USA
2010 April	Invited Review, JINA workshop Building virtual galaxies, Lansing, MI, USA
2009 Sept	Invited Talk, Lorentz Center workshops on stellar mergers, Leiden, NL
2009 Aug	Contributed Talk, IAU General Assembly in Rio, Brazil
2009 June	Contributed Talk, Binaries Key to understanding the universe, Brno Czech Republic
2009 April	Invited Talk, European week of astronomy and space science, Hertfordshire, UK
2008 July	Contributed talk, Evolution and pulsation of massive stars, Liege, Belgium
2008 April	Contributed talk, Stellar modeling in the 21st century, Sanya, Hainan, China
INVITED C	OLLOQUIA AND SEMINARS (SELECTION, FOR REVIEWS ETC SEE ABOVE)
2019 Jan 17	Invited Seminar, Max Planck Institute for Astrophysics, Garching, Germany
2018, Nov 26	Invited Colloquium, Oxford University, UK
•	0 Invited Colloquium, Oscar Klein Center, Stockholm, Sweden
2018, Feb 27	Invited Colloquium, Max Planck Institute for Astronomy, Heidelberg, Germany
2017, Oct 27	Invited Colloquium, NIKHEF, Amsterdam, The Netherlands
2017, Oct 18	Invited Seminar, Max Planck Institute for Astrophysics, Garching, Germany
2017, May 9	Invited City-wide colloquium, Heidelberg combined astrophysical institutes, Germany
2016	Invited Colloquium, Saclay, Paris, France
	Invited Colloquium, Kapteyn Institute Groningen, The Netherlands
2015	Invited Seminar, Princeton University, NJ, USA
	Invited Colloquium, Harvard Center for Astrophysics, Cambridge MA, USA
	Invited city-wide Colloquium, Joint Astrophysics Colloquium Munich MPA/MPE/ESO, Germany
	Invited Colloquium, Lund Observatory, Sweden
2014	Invited Colloquium, Dep of Astrophysics, California Institute for Technology, Pasadena, CA, USA
	Invited Colloquium, UC Berkeley, Dep. of astrophysics, CA, USA
	Invited Colloquium, UC Los Angeles, Dep. of astrophysics, CA, USA
	Invited Colloquium, UC Riverside, Dep. of astrophysics, CA, USA
	Invited Seminar, University of Birmingham, Dep. of astrophysics, UK
	Invited Colloquium, University of Warsaw, Poland
	Invited Colloquium, Monash University, Melbourne, Australia
	Invited Colloquium, American Museum of Nat History, NY, USA
	Invited Colloquium, University of Michigan, Ann Arbor, MI, USA
2012	Invited Colloquium, Michigan State University, Lansing, MI, USA
2013	Invited Colloquium, University of Arizona, Tucson, AZ, USA
	Invited Seminar, Anton Pannekoek Institute, University of Amsterdam, NL
	Invited Colloquium, University de Montreal, Canada Invited Colloquium, University of Florida Colloquium, Uni
	Invited Colloquium, University of Florida Gainesville, FL, USA
	Invited Colloquium, University of Maryland, College Park, MD, USA Invited Seminar, Canadian Institute for Theoretical Astrophysics, Toronto, Canada
2012	
2012	<b>Invited Colloquium,</b> Princeton University, NJ, USA, Invited Colloquium (main astrophysics colloquium) <b>Invited Seminar,</b> University of California, Berkeley, Dep of astrophysics, theory seminar, CA USA
	Invited Colloquium, Center for Cosmology and Particle Physics, NYU, NJ, USA
	Invited Colloquium, Astronomisches Rechnen-Institut, U. Heidelberg, Germany
	Invited Colloquium, University of Minnesota, MN, USA
	Invited Colloquium, Inst. d'Astrofíscia de Canarias de Canarias, Tenerife, Spain
	Invited Colloquium, University of Delaware Newark, DE, USA

## OBSERVING TIME AND ASSOCIATED RESEARCH FUNDING

	Awarded Observing time as Principle Investigator
	Awarded Observing time as <u>Principle Investigator</u>
2016	<b>ALMA</b> 2016.1.01015.S <b>,</b> 6.6 h
2010	"The Extreme UV through ALMA's Eyes: a unique probe of the ionizing spectrum of OB Stars"
2013/2014	Hubble Space Telescope/Wide Field Camera 3 GO13446-1 & 2, 4+2 orbits 56 k\$+26 k\$
2019/2011	"Siblings of Massive Stars: Extreme End of the Companion Mass Function"
2014	Hubble Space Telescope/Fine Guidance Sensor GO13447, 1 orbit,  34 k**
	"Massive monsters living deep inside the Tarantula Nebula"
	Awarded Observing time as Co-Investigator
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	Very Large Telescope (ESO)
2019	Testing the physics of massive overcontact binaries as candidate progenitors of binary black hole
	mergers via the chemically homogeneous evolution pathway (XShooter, PI: Abdul-Masih), 12 hr
2019	The dearth of short period binaries among very young massive stars (XSHOOTER, PI: Ramirez), 48 hr
2018	ESO large program, Demographics of stellar-mass black holes (XSHOOTER, PI: Jonker), 135 hrs
2018	The multiplicity properties of 70 early B-type stars in NGC~6231 - Part II. the period range
	corresponding to common envelope and gravitational wave progenitors (Flames, PI: Sana), 4 hrs
2017	The multiplicity properties of 70 early B-type stars in NGC~6231: a mile stone towards understanding
	the evolution of about half of the supernovae progenitors (Flames, PI: Sana), 18.3 hrs
2015	Uncovering the fate of the Tarantula's B-type binaries, (Flames, PI Taylor) 31 hrs
2013	Tracing the star formation history of the double stage H,scii super-bubble N,44 in the LMC
	(FLAMES/FORS, PI Sabbi), 9.5 h
2012	Orbital solutions for >100 massive binaries in 30 Dor, (Flames, 090.D-0323, PI: H. Sana), 31 hrs
2012	Massive YSOs in the periphery of R136 (Xshooter, 090.C-0346, PI: L. Kaper), 16 hrs
2008	<b>ESO large program,</b> The VLT-FLAMES Tarantula Survey (FLAMES 82.D-0222, PI: C. Evans, cons.
	member), 94.5 hrs
	77 111 0 M 1
2015	Hubble Space Telescope
2017	Dwarfs and Giants: Massive Stars in Little Dwarf Galaxies (PI Andrews), GO15093, 18 orbits
	Stars and gas in the most metal-deficient galaxies in the universe (Wofford), GO15220, 9 orbits
2016	A Definitive Test of Rotational Mixing in Massive Stars (PI Proffit), GO14673, 14 orbits
2015	Primordial Binary Fraction in Trumpler 14 (PI E Sabbi) GO14107, 11 orbits Long-Lost Companions: Binary Secondaries of Three Nearby Supernovae (PI Fox) GO14075, 9 orbits
2014	The Orion Nebula Cluster as a Paradigm of Star Formation." (PI M. Robberto) GO13826, 52 orbits
(())	Most massive overcontact binary known: on the verge of coalescence? (PI Sana), GO13806, 8 orbits A 3D view of massive cluster formation in the SMC. (PI Sabbi), GO13680, 5 orbits
2013	Time-Lapse Movie of the Kinematics Across the Carina Nebula (GO13390, PI N. Smith), 31 orbits
(0)	LEGUS: Legacy Extra Galactic UV Survey (GO13364, PI Calzetti), 154 orbits
2012	HTTP: Hubble Tarantula Treasury Project (GO12939, Pi: E. Sabbi), 60 orbits
(0)	Proper Motions of Massive Stars near the Galactic Center (GO12915, PI: D. Lennon), 36 orbits
(())	Westerlund 2, top to bottom: how massive star clusters form (GO13038, PI: A. Nota), 7 orbits
(())	Searching for prolonged star cluster formation in H alpha (GO12011, PI: Th. Puzia), 2 orbits
2011	Proper Motions of Massive Stars in 30 Doradus (GO12499, PI: D. Lennon), 30 orbits
(())	CCC: The Cosmic Carbon Conundrum (GO12472, PI: C. Leitherer), 29 orbits
(())	A Massive Star Census of the Starburst Cluster R136 (GO12465, PI: P. Crowther), 9 orbits
(())	Multiple populations in stellar clusters (AR12642, PI: V. Kozhurina-Platais & A. Dotter), Archival
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	Other facilities (Chandra, ALMA, NuStar, VLA, CFHT)
2016	Very Large Array (VLA): DDT VLA/16A-447 Probing the Sub-Parsec Environment of the Type 1b
	SN2016bau (PI Margutti)
2016	Chandra – NuSTAR: Mapping extreme mass loss from evolved massive stars with coordinated
	Chandra-NuSTAR observations, proposal 18500379 (PI Margutti), 30 ks Chandra + 100ks NuSTAR

ALMA The extreme UV through ALMA's eyes: a unique probe of the ionizing power of starbursts and SMBHs (PI Scovile) Cycle 2: 2013.1.00111.S, 6.6 h

Chandra X-ray Observatory: T-ReX: The Tarantula Revealed by X-rays (X-ray Visionary Project 15900142, PI Townsley), 2000 Ksec

Canadian French Hawaiian telescope (CFHT), BinaMIcS: Binarity and Magnetic Interactions in various classes of stars, (ESPaDOns Large Program, PI: Alecian, involved as cons. member) 606 hrs

### ORGANISATION OF (INTERNATIONAL) SCIENTIFIC MEETINGS

	As primary/main organizer, Chair or CoChair
2015 - now	Colloquium Organizer Anton Pannekoek Colloquium Series, Amsterdam, NL
2017	Chair (w/ Mandel) Lorentz Center Workshop, EM signatures of BH mergers, Leiden NL
2017	Organizer/SOC: KITP workshop Massive Stars Santa Barbara, CA, USA
2015	Chair (co-chaired w/ Sana) Lorentz Center Workshop Impact of binaries on the Universe, NL
2012 - 2013	Colloquium Organizer STScI, weekly audience ~100 people, Baltimore, MD, USA
	As co-organizer / member of Scientific/Local Organizing Committee (SOC/LOC)
2019	Scientific Advisor: Gravitational-Wave Physics and Astrophysics, KITP workshop, Santa Barbara, US
2018	SOC: Physics of Massive Stars from ZAMS to LIGO, Ensenada, Mexico
2018	SOC: IAU General Assembly "Binaries, Multis and Astrostatistics at the Crossroads", Vienna, Austria
2017	SOC: Ages <sup>2</sup> : Taking stellar ages to the next power, Elba, Italy
2017	SOC: Kavli Summer Program, Astrophysics with gravitational wave detections, Copenhagen, DM
2017	SOC: The Physics of evolved stars II, the role of binarity, Nice, France
2017	SOC: Impact of Binaries on Stellar Evolution, Garching, Germany
2016	SOC: From Stars to Massive stars, Gainesville, ~ 100 participants, FL, USA
2016	SOC: COSPAR symposium Massive Binaries Turkey~ 30 participants, (cancelled)
2015	SOC: The dynamic Universe, Aspen, ~ 30 participants, CO, USA
2015	SOC: Understanding Nebular Emission in High redshift Galaxies, ~ 50 participants Pasadena, CA, USA
2014	SOC: Binary Systems ~120 participants, Ulaan Bataar, Mongolia
2014	SOC: Orion Nebula Cluster, ~50 participants Baltimore, Md, USA
2013	SOC: Massive stars from alpha to omega, ~150 participants, Rhodes, Greece
2012	SOC: 30 Doradus, ~50 participants, Baltimore, MD, USA
2012	SOC: Intermediate Transients, ~40 participants, Baltimore, MD, USA
2006	LOC: Mass loss from Stars & Clusters, Lunteren, NL
2006	LOC: Dutch Astronomy Conference, Vlieland, NL

#### MAJOR INTERNATIONAL COLLABORATIONS / CONSORTIA

2017 - now	Science Case Team Working Group Compact Binaries, Science Case for 3G detectors
2016 - now	Management team COST Action Network "CheTECH", Lead of Dutch participation
2015 - now	Member of LISA-NL consortium
2015 - now	Member of PLATO complementary science team
2008 - now	VLT-FLAMES Massive Stars Consortium: pan-European collaboration organized a large ESO
	spectroscopic program, PI Evans (Edinburgh, UK)
2013 - now	LEGUS: HST Legacy Extra Galactic UV Survey collaboration organized around a Hubble Treasury
	imaging program PI Calzetti/Lee (Baltimore, Md)
2012 - now	HTTP: HST Treasury data set of the Tarantula Nebula: proper motion and photometric program with the
	Hubble Space Telescope
2012 - now	BinaMIcS: Binarity and Magnetism in Stars PI Alecian (Paris, France)

## SELECTION COMMISSIONS OF TRUST AND MEMBERSHIP OF SOCIETIES

SELECTION	COMMISSIONS OF TRUST AND MEMBERSHIP OF SOCIETIES
2010 - now	Reviewer for various refereed journals including Monthly Notices of the Astronomical Society, Astronomy
	and Astrophysics, the Astrophysical Journal and the Astrophysical Journal Letters
2018	EAS Prize comittee
2018 - 2014	NASA Time Allocation Committee Hubble Space Telescope: panel member (2014, 2018) and external
	reviewer (2015, 2016)

2018	Expert Reviewer Israeli Science Foundation
2014, 2015	Expert reviewer for OPTICON
2013	Expert Reviewer for Science and Technology Foundation Council (STFC), UK
2015 - now	Member of the European Astronomical Society
2012 - now	Member of the International Astronomy Union
2016 - 2017 2010 - 2014	Member of the American Physics Society Member of the American Astronomical Society
2010 - 2014	Wellber of the American Astronomical Society

#### UNIVERSITY & NATIONAL SERVICE WORK

2018	Committee tasked with redesigning the curriculum of the combined VU-UvA Physics Bachelor	
2017 - now	NOVA Research Committee: advisory committee to the board of the Netherlands Astronomy School	
2016 - now	Committee for the Van der Waals Lectureship series	
2015 - now	<u>Primary Organizer/coordinator</u> of API weekly astrophysics colloquium series	
2017	Organizer of the Dutch Theory Retreat	
2017	<u>Chair</u> of API MSc thesis prize committee	
2016	Member of the API 2016 MSc thesis prize committee	
2015 - now	Member of the committee for joint activities UvA/VU Department of Physics and Astronomy	
2015 - 2017	Member of the sounding board UD/UHD/TT for the dean	
2001 - 2003	Member of the educational advisory committee (Onderwijs Advies Comissie) at Utrecht University	
2001 - 2002	Board Member of the student council of the faculty of physics and Astronomy, Utrecht University	
2001 - 2002	Student Member of the Management Team of the Educational institute of the faculty, Utrecht University	
1997 - 2000	President (1998-1999) and member of the student council, Geert Groote College, Deventer, NL	
1998	Member of the "Sollictatie / Benoeming Advies Comissie", a comittee tasked with the selection of	
	candidates for the position of section coordinators, Geert Groote College, Deventer, NL	
1997-1999	Member of the Nationale Medezeggenschapsraad (representative advisory board), Stichting Carmel	
	Stichting Carmel is the national organization that unites 50 high schools throughout the country, among which my former high	
	school. I acted as student member in the (representative advisory board) at the national level.	
1997-1999	Member of the "Medezeggenschapsraad" (representative advisory board), Geert Groote College, Deventer	
	This council consisting of teachers, parents and students acted as a formal sounding board and adviced in various matters	
	regarding any educational and management matters.	
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#### MENTORSHIP AND STUDENT SUPERVISION

## As Primary Supervisor or Mentor

### Senior group members: Associates and Postdoctoral Researchers (4)

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2018 - now	Prof. Stephen Justham, associate researcher and visiting professor
2018 - now	Dr. Athira Menon, postdoctoral researcher
2017 - now	Dr. Robert Farmer, postdoctoral researcher
2016 - 2019	Dr. Silvia Toonen, independent prize fellow, VENI fellowship

#### PhD students (5)

2019 - now	Lieke van der Son, PhD student
2017 - now	Eva Laplace, PhD student
2015 - now	Mathieu Renzo, PhD student, graduating Fall 2019
2014 - 2019	Dr. Ylva Götberg, PhD student, graduated February 7, 2019
2014 - 2018	Dr. Emanouil (Manos) Zapartas, PhD student, graduated December 7, 2018

### MSc Students (11)

2018 - now	Javier Moran Fraille, UvA MSc student
2018 - 2019	Miron van der Kolk, UvA MSc student (w/Farmer)
2017 - 2018	Floor Broekgaarden, UvA MSc student (w/Justham)
2017 - 2018	Karel Temmink, UvA MSc student (w/Toonen)
2017 - 2018	David Hendriks, UvA MSc student (w/Renzo)
2016 - 2018	Walter van Rossem, UvA MSc student (w/Moravveji)

2016 – 2017	Louise Edstam, UvA MSc student
2016 - 2017 2015 - 2016	Coen Neijssel, UvA MSc student
2015 - 2016	Ruben Boots, UvA MSc student
2014 - 2015	Abel Schootemeijer, UvA MSc student
2013 - 2014	Emanouil Zapartas, UvA MSc student
2013 2011	Emanoun Zapartas, CVII Moe student
<b>BSc Students</b>	(8)
2018, 2017	Thomas Dodds, UvA BSc student, astrovaria project
2016	Floor Broekgaarden, UvA BSc student
2016	Max Briel, UvA BSc student
2015	Timonthy Mans, UvA undergraduate project
2015	Jur Haartman, UvA undergraduate project
2009	Adrian Hamers, UU, BSc student
2008	Mark Verkoulen, UU, BSc student
2007	Michiel Cottaar, UU, BSc student
	that continued were awardee fellowships or continued in academic positions:
2019	M. Renzo has been offered different prize fellowships and is still deciding.
2019	J. Moran Fraille has been offered different PhD positions and is still deciding
2018	Dr. S. Toonen has been offered and accepted a faculty position at Birmingham University, UK
2018	Dr. Y. Götberg, has been offered a <b>Carnegie Postdoctoral Fellowship</b> , US
2018	Dr. E. Zapartas has been offered a postdoctoral position at the University of Geneva.
2018	F. Broekgaarden, has been accepted in <b>Harvard's PhD program</b>
2018	K. Temmink, PhD at Radboud University Nijmegen, NL
2018	D. Hendriks, PhD at Surrey University, UK
2018	W. van Rossem, PhD at Birmingham's University
2015	C. van Neijssel (PhD Birmingham)
2014	N. Grin, co-supervisor (PhD Bonn)
2014	A. Schootemeijer (PhD Bonn, postdoc in Bonn)
2013	E. Zapartas (PhD Amsterdam, continued in my group)
2010	A. Hamers (PhD in Leiden, Postdoctoral fellow at IAS Princeton)
2009	M. Cottaar (PhD at ETH in Zurich, Postdoc at Oxford University)
TT /3.5	
	of visiting students and postdocs (short collaboration visits)
2019	Postdoc Antonia Bevan (CHeTeCH Cost Action Visitor)

2019	Postdoc Antonia Bevan (CHeTeCH Cost Action Visitor)
2019	Postdoc Tomer Shenar (CHeTeCH Cost Action Visitor)
2018	PhD student Moritz Pleintinger (CHeTeCH Cost Action Visitor)
2016, 8	PhD student: Alejandro Vigna-Gómez, now PhD student in Birmingham, UK
2016	Postdoc: Saida Caballero-Nieves, now faculty at Florida Institute for Technology, FL, USA
2016	PhD student: Dorrotya Szecsi, postdoctoral fellow in Prague, Czech Republic, Birmingham UK
2016	PhD student: Simon Stevenson, postdoc in Australia
2015	PhD student: Pablo Marchant, postdoctoral fellow at Northwestern University, USA
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## EXAMINATION OF GRADUATE STUDENTS

2019	Reading committee and PhD Examiner for A. Jaodand (U. Amsterdam)
2018	Reading committee and PhD Examiner for M. Ramirez Tannus (U. Amsterdam)
2017	PhD Examiner for T. Wijnen (Radboud Univ. Nijmegen)
2016	Reading committee & PhD Examiner for S. Repetto (Radboud Univ. Nijmegen)
2015	PhD Examiner for C. Abate (Radboud Univ. Nijmegen)
2015	PhD Examiner for R. Andrassy (Amsterdam/MPA Garching)
2014	PhD Examiner for O. Ramirez-Agudelo (Amsterdam)

TEACHING		
2019	Stellar Evolution (Graduate Level Course, University of Amsterdam, 6 EC)	
2018	Computational Astrophysics (Graduate Level Course, University of Amsterdam, 6 EC)	
	Guest lecturer, Big History, massive open online course (Non-science majors. University of Amsterdam)	
2017	Computational Astrophysics (Graduate Level Course, University of Amsterdam, 6 EC)	
	Lecturer, MESA (open source stellar evolutionary code) summer school, UCSB	
	Guest lecturer in Open Problems in Astrophysics (Graduate level course, University of Amsterdam)	
	Guest lecturer "Big History", massive open online course (Undergrad level, University of Amsterdam)	
2016	Computational Astrophysics (Graduate Level Course, University of Amsterdam, 6 EC)	
	Guest lecturer "Big History", massive open online course (Non-science majors. University of Amste	
2015	Guest lecturer in Advanced Stellar Evolution (Graduate level course, University of Amsterdam)	
	Guest lecturer in Open Problems in Astrophysics (Graduate level course, University of Amsterdam)	
2003 -2009	Teaching Assistant Advanced Stellar Evolution (Graduate level course, University of Utrecht)	
	Teaching Assistant Advanced Thermal Physics (Advanced Undergrad course, University of Utrecht)	
Teaching Assistant Quantum Mechanics (Undergraduate level, University of Utrecht)		
Teaching Assistant Special Relativity, Classical Mechanics, Optics (Undergrad. Level, Univ. of Utr		
2005	Volunteer Teacher, Bilingual primary school in rural area in Guatemala	
2001	Volunteer Teacher, Summer school Amsterdam Bijlmer, The Netherlands	

## PRESS RELEASES

(incomplete)		
Dec 2018	Elected as member of the Dutch Young academy of Sciences	KNAW
Jan 2018	Massive stars more common than scientist thought, Schneider et al. 2018	Science/NOVA
Jan. 2017	NuSTAR Finds New Clues to 'Chameleon Supernova, Margutti et al. 2017	NASA/JPL
Sept, 2016	ERC starting grant voor twee Nederlandse Astronomen	NOVA
March 2016	Hubble Unveils Monster Stars, Crowther et al. 2016	NASA/STScI
Oct 2015	Final Kiss of Two Stars Heading for Catastrophe, Almeida et al. 2015	ESO
Sept 2015	Snoeihete ster ontploft binnen 1500 jaar, for Tramper et al. 2015	NOVA
April 2015	Hubble's 25th birthday, a fly through the Westerlund 2 cluster, Zeidler et al. 2015	NASA
July 2014	Galaxy with a glowing heart, image release LEGUS survey, for Calzetti et al. 2014	ESA/NASA
July 2012	The brightest stars don't live alone, for Sana & De Mink et al., Science 2012	ESO/STScI
Aug 2012	Seeing double in 30 Doradus, for Sabbi et al. 2012	NASA/STScI
April 2012	Hubble's 22 <sup>nd</sup> anniversary image, for GO12499	NASA/STScI
Dec 2011	Fastest rotating star found in neighboring galaxy, for Dufton et al., ApJL 2011	ESO/STScI
April 2010	Utrechtse astronome onderzoekt met hubble fellowship de allerzwaarste sterren	NOVA
Nov 2009	Dubbelsterren hoofdverdachten van vervuiling sterhopen, for de Mink et al., 2009	NOVA
March 2009	Zwaar zwart gat in dubbelster M33-X7 verklaard, for de Mink et al., 2009	NOVA
	NOVA = Netherlands school for astronomy, STScI = Space Telescope Science Ins	titute

## Further selection of outreach activities

2018	Book presentation children book on binary black holes. "Femke en het zwarte gat"
2017	Founding member online network for women in theoretical and computational astrophysics
2017	Organizer Local Hack event for women
2016	FNWI/API speaker in beta break lecture series Spui25
2009	Science Museum Lecturer, Science for Children
2008	Popular lecture at the Youth Association for Astronomy in Utrecht, NL.
2007-2008	Organizer of the Dutch Astronomy Olympiad 2008
2005	Primary organizer of a one day Astrophysical Student Symposium, Utrecht University
2000-2005	Open science days and high school visits to promote science

# MEDIA APPEARANCE (INTERVIEWS, FEATURES)

(incomplete)	
2019 Jan	Newspaper Telegraaf, featured as new member of the young academy of sciences
2018 Nov	Volkskrant, interview about past collision of Milky way covering Helmi's work
2018 Oct	Nieuwsuur Radio, phone interview on the status of Hubble's gyroscopes
2018	Newspaper Parool: Personal research profile

2018 March	New Scientist Magazine: Interview for an 8-page personal research profile
2018 Jan	Interview for Volkskrant, "Obesitas in heelal: aantal sterren met overgewicht veel groter dan gedacht"
	https://www.volkskrant.nl/wetenschap/obesitas-in-heelal-aantal-sterren-met-overgewicht-veel-groter-dan-
	gedacht~a4554160/
2017 Oct	Interview for New Scientist Netherlands on gravitational waves
	https://newscientist.nl/nieuws/zwaartekrachtsgolf-botsende-neutronensterren-onthult-oorsprong-goud/
2017 Oct	Live Interview for Radio Nos op 3 on the binary neutron star merger
2017 Sep	Feature in Dutch popular scientific magazine KIJK
2017 Feb	Interview for Discovery Channel "How The Universe Works": exclusive episode on Massive Binary Stars
2017 Feb	Interview for Science Magazine in depth article or progenitors of binary black holes
2017 Feb	Interview with Quanta magazine on r-process nucleosynthesis
2016 Nov 28	Elsevier tijdschrift: featured in an outlook for 2017 by 5 promising young Dutch scientist
2016 Sept 6	Online Quanta magazine & podcast: protagonist in feature "Colliding Black Holes tell story of the stars"
	https://www.quantamagazine.org/20160906-black-hole-ligo-astronomy/
2016 Aug 26	Radio interview Een Vandaag "Veel belovende Sterrenkundige in de race voor wetenschapstalent 2016"
2010114820	http://www.nporadio1.nl/radio-eenvandaag/onderwerpen/372067-veelbelovende-sterrenkundige-in-de-
	race-voor-wetenschapstalent-2016
2016 Aug 25	Newspaper Parool: Short interview related to nomination as "wetenschapstalent 2015"
2016 July, 1	Magazine Filosofie: Featured in item over "verwondering" by Roeline Bos
,	https://www.filosofie.nl/nl/artikel/45979/lezersenquete-profielen-van-verwonderaars.html
2016 March 17	<b>BBC</b> "Hubble spies the land of giants" featuring research on most massive stars
	http://www.bbc.com/news/science-environment-35833873
2015, Nov 25	Magazine AmsterdamScience, Interview for cover feature on 25 years of Hubble
,	http://www.amsterdamscience.org/hubbles-25-th-birthday/
2015 Nov 7	Newspaper Parool: Listed as one of nine young Amsterdam academics that are making impact worldwide
2015 Oct 25	Newspaper Le Monde: Mentioned in "Deux étoiles géantes s'embrassent avant leur fin tragique"
	http://passeurdesciences.blog.lemonde.fr/2015/10/25/deux-etoiles-geantes-sembrassent-avant-leur-fin-
	tragique/
2015 Oct 21	TV CBS News: cited in "Stars locked in potentially fatal cosmic kiss"
	http://www.space.com/16767-massive-stars-companions-merge-vampire-stars.html
2015, Oct 21	Newspaper NRC: mentioned in a feature of the over contact binary
	https://www.nrc.nl/nieuws/2015/10/23/deze-sterren-slokken-elkaar-op-1551209-a170946
2015, Oct 21	TV item De Kennis van Nu: Interview
	http://dekennisvannu.nl/site/artikel/Bijzondere-dubbelster-ontdekt/7609
2015 Oct 21	Newspaper Volkskrant: Featured research "Innige zoen van ster VFTS 352 is hoe dan ook een
	doodskus"
	http://www.volkskrant.nl/wetenschap/innige-zoen-van-ster-vfts-352-is-hoe-dan-ook-een-
	<u>doodskus~a4167988/</u>
2015 Aug, 1	Magazine Libelle: 5 page personal professional feature
2015 March 4	TV NPO Wetenschap: De Hubble ruimte telescoop
	http://www.npo.nl/de-kennis-van-nu/04-03-2015/VPWON_1236022
2012, July 26	Popular Science Website space.com feature on Science Paper
	http://www.space.com/16767-massive-stars-companions-merge-vampire-stars.html
2012, July 2015	News website Daily mail mentioned in "Attack of the vampire sun"
	http://www.dailymail.co.uk/sciencetech/article-2178851/Attack-vampire-sun-Astronomers-spot-binary-
	star-sucks-life-another.html
2011, Dec 20	Podcast ScienceUpdate.com interview about the fastest spinning star
	http://www.scienceupdate.com/2011/12/star/
2011, Dec 2	News website nu.nl: mentioned in feature on the fastest rotating star
	http://www.nu.nl/wetenschap/2683653/snelst-draaiende-ster-ooit-ontdekt.html
2010, April 10	Radio Interview Radio 1 journaal: live feature on Hubble fellowship and dubbelsterren
2010, April 9	Newspaper Volkskrant: mentioned in feature related to NASA fellowship
	http://www.volkskrant.nl/wetenschap/nederlandse-astronome-krijgt-beurs-voor-nasa~a982686/