



Nami Mowlavi

Astrophysicist

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Scientific Collaborator
Department of Astronomy
University of Geneva (CH)

Born in Belgium, 1964
Married, three children

CURRENT RESPONSIBILITIES (jointly with Dr L.Eyer)

- Deputy Manager, Variability Processing Group of [ESA's Gaia mission](#)
(16 people at Geneva University + 70 people across Europe)
- Coordination of the stellar variability group at the Department of Astronomy
(8 people at Geneva University, including 2 PhD and 2 Post-Doc)
- Graduate course on Stellar Variability, 4th year
- Co-supervision of PhD students

CURRENT RESEARCH (with selected publications, supervised students in italic)

Periodic variable stars (pulsating stars, eclipsing binaries)

- "Revealing delta Cephei's Secret Companion and Intriguing Past"*
R.I. Anderson, J. Sahlmann, B. Holl, L. Eyer, L. Palaversa, N. Mowlavi, et al.: [ApJ 804, 144](#) (2015)
- "Cepheids in open clusters: an 8D all-sky census"*
R.I. Anderson, L. Eyer, N. Mowlavi: [MNRAS 434, 2238](#) (2013)
- "Stellar variability in open clusters. I. A new class of variable stars in NGC 3766"*
N. Mowlavi, F. Barblan, S. Saesen, L. Eyer: [A&A 554, A108](#) (2013)
- "Long period variables in the Large Magellanic Cloud from the EROS-2 survey"*
M. Spano, N. Mowlavi, L. Eyer, G. Burki, J.-B. Marquette, et al.: [A&A 536, A60](#) (2011)

Transient phenomena

- "Searching transients in large-scale surveys. A method based on the Abbe value"*
N. Mowlavi: [A&A 568, A78](#) (2014)

Stellar evolution

- "On the effect of rotation on populations of classical Cepheids. I. Predictions at solar metallicity"*
R.I. Anderson, S. Ekstrom, C. Georgy, G. Meynet, N. Mowlavi, L. Eyer: [A&A 564, A100](#) (2014)
- "Stellar mass and age determinations. I. Grids of stellar models from Z=0.006 to 0.04 and M=0.5 to 3.5 M_⊙"*
N. Mowlavi, P. Eggenberger, G. Meynet, et al.: [A&A 541, A41](#) (2011)

PROJECTS

Space-based

- ESA [Gaia mission](#) (2007-today): Observing 1 billion stars in 3D
- ESA [INTEGRAL mission](#) (2000-2007): Observing the high energy universe

Ground-based

- [Gaia-ESO survey](#) (2011-today): Characterizing 100'000 stars in the Galaxy
- Geneva Open Clusters survey (2007-today): Studying populations of variable stars in Open Clusters

OBSERVATIONS

- Flemish 1.2m [Mercator telescope](#) (La Palma, ES): 7 x 10 nights, since 2009
→ Photometry and spectroscopy
- Swiss 1.2m [Euler telescope](#) (La Silla, CL): 3 x 14 nights, since 2009
→ Photometry and spectroscopy
- ESO's 8.4m [VLT telescope](#) (Paranal, CL): 1 x 3 nights, 2014
→ Spectroscopy

PAST EXPERIENCES

- 2000-2007 : *Scientific Collaborator*, INTEGRAL mission (University of Geneva, CH)
- 1995-1999 : *Post-Doc* in stellar evolution (University of Geneva, CH)
- 1990-1995 : *PhD* in stellar evolution (Université Libre de Bruxelles, BE)
- 1987-1990 : Teaching undergraduate courses (Physics & Numerical Analysis, Université du Bénin, TG)

EDUCATION

- 1995 : *PhD in astrophysics* (Université Libre de Bruxelles, BE)
Thesis : "*Structural and chemical evolution of intermediate-mass stars on the asymptotic giant branch*"
Mention: 'La Plus Grande Distinction' + 'Les Félicitations du Jury'
- 1987 : *Physicist Engineer* (Université Libre de Bruxelles, BE)

AFFILIATIONS

- [Member](#) of the [International Astronomical Union](#)
- Member of the [European Astronomical Society](#)
- Member of the [Swiss Society for Astrophysics and Astronomy](#)

PRESS RELEASES

- [ESO Press Release 1326](#) (2013): "*New kind of Variable Star Discovered*"
- [Geneva University Press Release](#) (2013): "*Qu'est-ce qui fait vibrer les étoiles?*"

PUBLICATIONS (as of 28/09/2015)

Refereed	59 articles (ADS)
Non-refereed	109 articles (ADS)
Others	<u>96 articles (ADS)</u>
Total	264 articles (ADS)

INTERNATIONAL ATTENDANCES (since 2013)

Invited visits

06/2014	Beijing (CN)	Beijing Normal University
06/2014	Urumqi (CN)	Xinjiang Astronomical Observatory, Chinese Academy of Sciences
04/2014	Santiago (CL)	ESO Offices

Conferences

08/2015	Honolulu (US)	International Astronomical Union General Assembly
12/2014	Barcelona (ES)	“The Milky Way unravelled by Gaia”
09/2014	Worsaw (PL)	Fifth Gaia Science Alerts Workshop
09/2014	UlaanBaatar (MN)	“Binary systems, their evolution and environments”
09/2013	Padova (IT)	GREAT-ESF Workshop “The World of Clusters”
09/2013	Leuven (BE)	“Setting a new standard in the analysis of binary stars”
08/2013	Wroclaw (PL)	“Precision Asteroseismology”
06/2013	Moscow (RU)	“Putting A stars into context”

Gaia meetings

05/2015	Lisbon (PT)	Gaia CU7 meeting #20
11/2014	Geneva (CH)	Gaia CU7 meeting #19
05/2014	Tel Aviv (IL)	Gaia CU7 meeting #18
11/2013	Nice (FR)	Gaia CU7 meeting #17
05/2013	Aarhus (DK)	Gaia CU7 meeting #16