

# IAU S343: Executive Summary

IAU Symposium 343 "Why Galaxies Care About AGB Stars: A Continuing Challenge through Cosmic Time" was held from Monday August 20 to Thursday August 23 2018 in the context of the XXXth General Assembly in Vienna. It was the fourth in a series on "Why Galaxies Care About AGB Stars" previously held in Vienna in 2006, 2010, and 2014.

The symposium built a bridge between research on the Asymptotic Giant Branch (AGB) stars themselves and their application to the modelling of stellar populations and the chemical evolution of galaxies and the Universe as a whole. The symposium was divided into nine topics

- Stellar structure and evolution to, on, and past the AGB
- Nucleosynthesis, mixing, and rotation
- Pulsation, dynamical atmospheres, and dust formation
- Circumstellar envelopes of AGB stars and their progeny, planetary nebulae
- Binarity, planets, and disks
- AGB stars in the cosmic matter cycle
- Resolved and unresolved AGB populations
- Galaxy evolution, including the first AGB stars
- New and future observational perspectives

The program consisted of 2 plenary (45 minutes each), 21 invited (25 minutes each), 27 contributed (15 minutes each) talks, and about 130 posters divided over the nine topics.

The two-female-plenary speakers, Eline Tolstoy on "Resolved stellar populations: the outlook for JWST and ELT" and Amanda Karakas on "Nucleosynthesis in stars: Origin of the heaviest elements" gave very inspiring talks to the General Assembly as a whole.

In total there were 131 female and 344 male registered attendants from 57 countries.

IAU grants were awarded to 20 female and 24 male participants from 20 countries.

There was no formal summary talk but SOC chair Hans Olofsson presented a summary in Division H "Interstellar Matter and Local Universe" the day after the end of the meeting.

At the time of writing (January 2019) the proceedings are in press. Both plenary and all invited speakers and 24 out of 27 contributed talks submitted contributions for the proceedings.

The SOC consisted of 9 female and 7 male members.

SOC:

Martha Boyer (USA)

Martin Groenewegen (Belgium)

Susanne Höfner (Sweden)

Atefeh Javadi (Iran)

Ciska Kemper (Taiwan)



Franz Kerschbaum (Austria, co-chair)  
Maria Lugaro (Hungary)  
Claudia Maraston (UK)  
Paola Marigo (Italy, co-chair)  
Shazrene Mohamed (South Africa)  
Keiichi Ohnaka (Chile)  
Hans Olofsson (Sweden, chair)  
Angela Speck (USA)  
Hans Van Winckel (Belgium)  
Peter Wood (Australia)  
Albert Zijlstra (United Kingdom)

Proceeding editors: Franz Kerschbaum, Martin Groenewegen, Hans Olofsson