

8th Quantum Universe Symposium Groningen, scientific report

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The Eighth Quantum Universe Symposium took place on March 28 and 29, 2018. The first day of the symposium consisted of 3 masterclass lectures for MSc and PhD students, the second day of a workshop with 7 keynote and invited lectures. The venue for the masterclasses was the Conferentiezaal in the KV, the venue for the workshop the Zernikeborg at the Zernike Campus of the University of Groningen.

The workshop gathered a mixed company of experts from theoretical physics, particle physics, astrophysics and cosmology. The special focus of the symposium was symmetry in physics, motivated by the 100th year since Noether's theorem was forwarded by Emmy Noether. The issue of symmetry was interpreted in the broadest sense, and involved aspects such as resonances in planetary motion, planetary ring dynamics and (multi)fractal processes. A highlight of the workshop were the 3 masterclass lectures by prof. H. Broer (on geometric optics), prof. S. Ryan (Dublin) on symmetries in QCD, and prof. B.J.T. Jones on multifractal processes. All three masterclass lecturers also took care of keynote lectures. The other 4 invited/keynote lectures were by R. Timmermans on Emmy Noether, K. Schalm on applied string theory in solid state physics, W. Hulsbergen on antimatter, and Larry Esposito on the dynamics of Saturn's rings. Prof. Larry Esposito from Boulder presented a public lecture on the latest Cassini results on planet Saturn in the DOTliveplanetarium full dome theater.

Also for 2019 we have to started the organization of a QU9 meeting along the same lines, with a day with a series of masterclass lectures and a scientific workshop.