



Vacancy

PhD position in Astrophysics

The Department of Astrophysics of Radboud University Nijmegen invites applications for a PhD position on

The formation of multiple stellar populations in star clusters

The discovery that most globular clusters contain multiple stellar populations has revolutionized our way of thinking about how massive star clusters form and evolve. According to the self-enrichment scenario, gas enriched by nuclear reactions in relatively massive stars and expelled by their slow winds accumulates deep in the gravitational potential well of the cluster and cools to form a new generation of stars. The aim of this project is to examine this scenario in detail, by performing self-consistent simulations of massive clusters. Using the recently developed AMUSE software framework we will model simultaneously the gravitational stellar dynamics, the evolution of the stars and the hydrodynamics and radiative feedback of the gas in the cluster.

The PhD student will work under supervision of Dr. Onno Pols at the Department of Astrophysics of Radboud University Nijmegen, and in close collaboration with the AMUSE development team at Leiden Observatory led by Prof. Simon Portegies Zwart. The Astrophysics Department in Nijmegen is a young and vibrant research group of about 40 PhD students and postdocs and 10 faculty staff, working in a variety of research fields. Further information on Nijmegen Astrophysics and on the AMUSE project can be found at www.astro.ru.nl and amusecode.org, respectively.

Candidates must hold a Master's degree in (astro)physics at the start of the PhD project. Preference will be given to candidates having substantial experience with numerical modelling. The position is for four years full-time employment and is funded by NWO, the Netherlands Organisation for Scientific Research. Salaries are according to the Collective Employment Agreement for Dutch Universities and start at Euro 2042 gross/month, plus additional holiday and end-of-year bonuses. A starting date in early 2013 is anticipated.

Applications should include a curriculum vitae, a brief statement of research experience and motivation, a list of courses and grades and the contact details of two referees. All applications received by **November 15, 2012** will be given full consideration. Please send applications and further inquiries about the position by email to Onno Pols, o.pols@astro.ru.nl.