

## **A Letter of Community Support for Professor Marcella Carollo**

October 26, 2017

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The recent article in NZZaS about ETH Astrophysics is very troubling.

We take strong exception to the reporting on the two astrophysics Professors identified in the article. They did something that few have done. They built an absolutely world class astronomical institute in less than a decade. They are both leaders in the field and have trained many professional astronomers who have gone on to permanent positions and won major awards.

Emphasizing the "dual career" appointment in the article is belittling. The female Professor in question came to ETH with an outstanding research record from a Professorship held at a major US Ivy League university and the appointment followed rigorous external review.

The article misses the competitive pressures that are faced by young people seeking academic research careers. A 2012 US study found that only 15% of PhDs held a tenure track position 5 years after their degree, even lower in astronomy, and this fraction is decreasing. A very high level of achievement is mandatory and this takes strong dedication and hard work, beyond what many may consider reasonable or have expected. A dropout rate of 30% is not unusual in prestigious PhD programs. The resulting career pressure on students and postdoctoral researchers makes the relationship between Professor and student ever more complex.

The students of the female Professor in the article have done far better than the norm. Her first five PhD students all finished and got tenure track positions. This is a most unusual "statistic that does speak for itself". From our own personal observation, she has been unusually dedicated to her students. If at times, she comes across as a relentless task master, this owes to her commitment to her students and desire to maximise their career chances. This particular Professor has also been a strong promoter of young women in astronomy. Many approached her as a role model and asked for a chance to prove themselves.

The career path for young scientists is very competitive and it is nearly impossible to predict research ability from performance at the undergraduate degree level. Maintaining high standards and expectations, or advising students who are found to have a lower aptitude for research early in the process that their futures may lie elsewhere, is surely a better approach than letting young people spend years of frustration when they are poorly suited to a career in academia.

Many of the issues raised in the NZZaS articles are of broad and genuine concern in academia. To finger a particular female Professor is grossly unfair and may reflect the misogyny that is generally prevalent in society and sadly even more pronounced in a University science environment. It is particularly misdirected in this case as the Professor in question has an outstanding record in launching PhD students towards faculty level careers.

The signatories below include people supervised by the female Professor (her former students are preparing another letter), colleagues who have spent weeks and months seeing the dynamics of the Institute, colleagues at ETH and UZH, and other international collaborators. They have been around and seen the Institute, experienced the research spirit and seen the mentoring of young scientists. We are pleased that ETH has just announced that they will have an external investigation of this matter.

### **Signatories:**

#### **Postdocs and others mentored and supervised:**

Justin Read, Professor, University of Surrey, UK  
Noelia E. D. Noël, Lecturer in Astrophysics, University of Surrey  
Victor Debattista, Reader in Astrophysics, University of Central Lancashire  
Sebastiano Cantalupo, SNF Professor of Physics, ETH  
Yingjie Peng, Youth Qianren Research Professor, Kavli Institute & Peking University

#### **Frequent/Long Term Visitors to ETH**

Piero Madau, Distinguished Professor, Astronomy & Astrophysics, UC Santa Cruz  
Richard Ellis, CBE FRS, Professor of Astrophysics, University College London, UK  
Alvio Renzini, Professor, National Institute of Astrophysics, Italy  
Avishai Dekel, Andre Aisenstadt Chair of Theoretical Physics, Hebrew University of Jerusalem

#### **Zurich Colleagues:**

Ursula Keller, Professor, Institute of Quantum Electronics, ETH  
George Lake, Professor, Institute for Computational Science, UZH  
Lucio Mayer, Professor, Institute for Computational Science, UZH  
Romain Teyssier, Professor, Institute for Computational Science, UZH

#### **Leading international scientists:**

Ralf Bender, Director Max-Planck-Institute for Extraterrestrial Physics  
Colin Norman, Professor of Physics and Astronomy, Johns Hopkins University  
Emanuele Daddi, Research Scientist, Dept d'Astrophysique, CEA Saclay, FR  
Roberto Maiolino, Professor, University of Cambridge, UK  
Sandro d'Odorico, Astronomer Emeritus, European Southern Observatory  
Daniela Calzetti, Professor, University of Massachusetts, USA  
Susan Kassin, Assistant Astronomer, Space Telescope Science Institute, USA

Mauro Giavalisco, Professor, University of Massachusetts, USA  
Roger Davies, Philip Wetton Professor of Astrophysics, Oxford, UK  
Teresa Montaruli, Professeur Ordinaire, UGE  
Elena D'Onghia, Associate Professor, University of Wisconsin, USA

*Note: Institutional Affiliation for Identification Only*