Universenet project -Bulletin

Marie Curie Actions Human resources and mobility

News

Winter 08/09

❖*UniverseNet has appointed 2 new ESR - Nikolaos Brouzakis (IFAE) and Vittoria Demozzi (Munich) and 1 ER - Juan Bueno Sanchez (Ioannina). WELCOME!*

❖ *UniverseNet has its first 'graduated' Fellow – Dr Hael Collins from University of Copenhagen. See below an overview of UniverseNet fellows.*

❖*Our 2nd annual school was held at Oxford in September and it was a very fruitful event. The "mid-term review" was conducted by external referee Prof Misha Shaposhnikov and EC representatives Dr Lidija Matija and Valeria Laspina.*

❖*We welcome the new members from CEA Saclay who will be part of the extended team of APC Paris. Welcome to Philippe Brax, Chiara Caprini, Marco Cirelli, Carlos Savoy, Filippo Vernizzi, Michele Frigerio, Fabio Iocco, Arunansu Sil, Camille Bonvin, Emeline Cluzel and Sophie Mariadassou!*

❖*Since October 2007, UniverseNet members have produced 208 relevant publications, 66 of which were inter-Team collaborations.*

❖*UniverseNet members have been involved in organising and speaking at over 76 workshops and conferences in the present year.*

❖*UniverseNet members have participated of 21 outreach activities (public talks, popular articles, blogs, interviews and performances) this year.*

❖*UniverseNet has already delivered 108.75 months training to early stage researchers and 116 months to experienced researches.*

❖*UniverseNet administrator Ana (that's me!) has finished her PhD submission and viva – and has the following acknowledgment in her thesis: "I also would like to thank my UniverseNet network group for their understanding while I worked on my thesis. Especially, I want to thank my boss, Prof Subir (Sarkar), who happily agreed with all my 'working holidays' and who was always supportive of my studies." Thank you!*

Partner	Researcher	Nationality	ESR	ER
1. Oxford - ESR	**Phillipp Mertsch**	German (MS)	36	
1. Oxford - ER	**Arman Shafieloo**	Iran (3rd country)		24
2. Lancaster - ER	**Narendra Sahu**	Indian (3rd country)		24
3. KCL - ESR	**Anna Kostouki**	Greek (MS)	36	
4. IFAE - ESR	**Nikolaos Brouzakis**	Greek (MS)	36	
4. IFAE - ER	**Thomas Konstandin**	German (MS)		24
5. Bonn - ESR	**Suchita Kulkarni**	Indian (3rd country)	18	
5. Bonn - ER	**Eun Kyung Park**	Korean (3rd country)		24
6. Muechen - ESR	**Vittoria Demozzi**	Italian (MS)	18	
8. CERN - ESR	**Charalampos Bogdanos**	Greek (MS)	4	
8. CERN - ESR	**Nicholas Harries**	UK (MS)	4	
8. CERN - ESR	**Lotta Mether**	Finnish (MS)	4	
8. CERN - ESR			12	
9. Helsinki - ESR	**Diana Battefeld**	US (3rd country)	24	
9. Helsinki – ER	**Gerasimos Rigopoulos**	Greek (MS)		24
10. Ioannina - ER 1	**Nicolas Chatillon**	French (MS)		9
10. Ioannina - ER 1	**Juan Bueno Sanchez**	Spanish (MS)		15
10. Ioannina – ER 2	**Katarzyna Zuleta**	Polish (MS)		24
11. INFN-ESR			36	
11. INFN- ER	**Michael Gustafsson**	Sweden (MS)		24
12 Paris VII	**Eugeny Babichev**	Russian (3rd country)		24
13. Annecy - ESR	**Wessel Valkenburg**	The Netherlands (MS)	36	
14. Warsaw ER	**Paul Hunt**	UK (MS)		24
14. Warsaw ESR	**Ioannis Ntalianis**	Greek (MS)	36	
16. Copenhagen - ER	**Hael Collins**	US (3rd country)		12

UniverseNet fellows – Overview.

Learn a bit about our ER –Gerasimos Rigopoulos

Gerasimos Rigopoulos

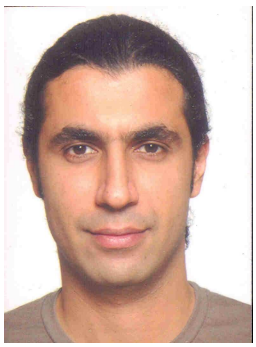
I was always fascinated by the workings of the natural world and the power of science in explaining them. Early on, I used to envisage myself as a geologist, a biologist or, eventually, an astronomer going to remote places to measure the Universe. So, I ended up studying physics in the University of Athens and, slightly deviating away from observatories and telescopes, I went on to do a PhD in Theoretical Cosmology in Cambridge, UK. I had a very good experience as a novice postdoc in Utrecht, in the Netherlands and in October 2007 I was lucky to join the Cosmology group in Helsinki, Finland. I say lucky because I found both the research environment here very stimulating and the city-life very pleasant - after the winter at least!

My research since the beginning of my PhD has largely focused on the calculation of non-gaussianity in inflationary models, a seemingly complicated task which requires going beyond linear perturbation theory. My impression as a PhD student was that very few people seemed to be interested in the subject. I am happy to see that nowadays non-gaussianity is frequently mentioned in many plenary conference talks. I am still interested in the subject as well as the development of higher order calculations in the context of inflation, especially exploring quantum aspects - loops - of non-linear corrections and their connection with the classical stochastic picture usually employed by cosmologists. With T. Prokopec, I have also studied the quantum decoherence of inflationary perturbations due to the presence of isocurvature modes, a phenomenon which is ubiquitous if more than one degrees of freedom are relevant during inflation. Along with T. Prokopec and J. Koksma we elaborated on the use of the functional Schrodinger picture of cosmological fluctuations and the role of causality in this formalism. More recently, along with K. Enqvist, S. Nurmi and D. Podolsky here in Helsinki, we made progress in understanding the issue of the infrared divergences which appear in non-linear calculations of inflationary perturbations.

Learn a bit about our ER –Arman Shafieloo

I was born in Tehran-Iran in a winter day in 1976. From my childhood I was very much interested in Astronomy, natural sciences and mathematics. I entered Sharif University of Technology in Tehran-Iran in 1994 to pursue my B. Sc in physics. In year 2000, I came to India to do my M. Sc in physics department, university of Pune (Poona). I finished my M. Sc physics with the first rank among all physics students and I received the prestigious "S. S. Joshi" award from the university of Pune. In 2002, I could clear JEST entrance exam followed by an interview to join IUCAA (Inter University Centre for Astronomy and Astrophysics) as a research scholar to do my graduate school and Ph.D. I was supported with a full scholarship during my Ph.D from UGC-government of India. At the present I am at the end of my Ph.D and I will submit my thesis very soon. During my Ph. D I was mostly involved in model-independent and non parametric reconstruction of cosmological parameters from different observational data.
In Oxford, I would like to continue working at the interface between theory and observations, which would entail implementing advanced statistical methods of data analysis. Apart from this I would be very much willing to collaborate on new and well-defined research projects as a useful and dynamic member of UniverseNet community, having a common overlap of interests and under supervision of Prof. Subir Sarkar.

Some of my main research interests (which I would like to pursue alongside my main responsibilities as a team member) are the physics of the early universe from CMB data, and reconstruction of the properties of dark energy by using different cosmological observations.



Arman Shafieloo

Apart from my professional career, I am interested in many different things. I am interested in philosophy of science, genetic anthropology, and natural evolution. Apart from science, I am interested in avant-garde cinema, Persian and western classical music and literature. I play Tanboor, which is a Persian classical instrument. I also play Football(the one which we play with feet and not with hands!), tennis, table tennis and chess. I also like sport fishing, skiing, trekking and mountain

Universenet website

Find time to visit our website and send us suggestions, corrections, ideas!!

ALL THE TALKS FROM OUR 2ND SCHOOL ARE AVAILABLE ONLINE!

We keep our website up-to-date and with (hopefully!) useful information:

Publications,
ESR-ER researchers,
Events,
Outreach,
And others…
http://www.physics.ox.ac.uk/universenet/

"Universenet in Numbers"

Partners	**16**
Members	**269**
Institutions	**40**
ESR appointed/ total	**9/ 10**
ER appointed/ total	**11/11**
Publications	**231**
Month in the project/ total	**27/48**

Universenet Schools

If you are wondering – where the next UniverseNet school will be held:

2009 – Spain
2010 – Italy

Date and place will be announced soon!

Universenet Publications

Please let us know about your PUBLICATIONS!!!! And about your talks, meetings, etc …

And *do remember to acknowledge the network* when appropriate: "This work was supported (or partially supported) by the EU FP6 Marie Curie Research & Training Network "UniverseNet" (MRTN-CT-2006-035863)".

Inter-team publications are very important to our network!!!

If there is anything you would like posted in future Bulletins, please contact
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