Marika Asgari

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Education and Research History

since 2015: Postdoctoral Researcher in Institute for Astronomy, Edinburgh University

2011-2015: PhD of Astrophysics in Institute for Astronomy, Edinburgh University

2011: Research Assistant of Peter Schneider in AifA, Bonn University

2008-2011: (With Excellence) Master of Astrophysics in AIfA, Bonn University

2003-2007: Bachelor of physics Sharif University of Technology, Tehran, Iran

1999-2003: (Grade>90%) High school Diploma in physics and mathematics, A NODET (National Organization for Development of Exceptional Talents) High School, Tehran, Iran.

Scholarships and Awards

2011-2015: SUPA (Scottish Universities Physics Alliance Prize scholarship)

2011-2015: Edinburgh Global Research Scholarship

2011 : Selected for the IMPRS (International Max Planck Research School)

2009-2011: BCGS (Bonn Cologne Graduate School) scholarship,

2008- 2010 : BIGS (Bonn International Graduate School) scholarship,

Scientific Papers:

2012 : Cosmic Shear Tomography and Efficient Data Compression using COSEBIs,
Asgari, M., Schneider, P., & Simon, P (From my masters thesis)
(published in A&A 542, A122 2012), arXiv: 1201.2669

2014: A New Data Compression Method and its Application to Cosmic Shear Analysis,
Asgari, M. & Schneider, P. (In collaboration with Bonn university)
(published in A&A 578, A50 2015), arXiv: 1409.0863

2015: Revisiting CFHTLenS cosmic shear: Optimal E/B mode decomposition using
COSEBIs and compressed COSEBIs
Asgari, M. , Heymans C. , Blake C. , Harnois-Deraps J.,
Schneider P. , Van Waerbeke L.,   arXiv:1601.00115

2016: Flat sky Psuedo Cls analysis for cosmic shear analysis
(in prep, check my thesis on my webpage), Asgari, M et al.

2016: RCSLenS: Cross-Correlations with CMB Lensing (in prep)
Joachim Harnois-Deraps, ..., Marika Asgari, RSCLenS Collaboration.

Talks And Posters

Long Talks:

Revisiting CFHTLenS cosmic shear analysis, Leiden 2016

Pseudo Cl analysis for weak lensing, Euclid Consortium meeting, Lausanne 2015

Cosmic shear analysis with CFHTLenS, Bonn University 2015 (invited talk)

Cosmic shear analysis with CFHTLenS data, DEX meeting, Edinburgh 2015

Cosmic shear analysis methods, Fourier vs. real space, Astrophysics colloquium
    seminar, Edinburgh-2014

Cosmic shear estimators, XIst Cosmology school in Cargese- 2012

COSEBIs and efficient cosmic shear analysis, DEX meeting in Durham -2012

Tomography with COSEBIs, Astrophysics seminar, Bonn 2011

Introduction to COSEBIs, Cosmology group seminar, Bonn – 2010

Posters:

Physics, Edinburgh-2013

Euclid kick off meeting, Edinburgh-2012

National Astronomy Meeting,Manchester-2012

Schools, Conferences and Meetings

KiDS meeting, Leiden 2016

Euclid 2-point statistics metting, Paris 2016

Euclid UK consortium meeting, Edinburgh 2015

Euclid consortium meeting, Lausanne 2015

Durham Edinburgh Extragalactic meeting, Edinburgh 2015

KIDS meeting, Edinburgh 2014

Introduction to GPU Programming workshop, 2014

Higgs' conference, New directions in Theoretical physics, Edinburgh UK-2014

Euclid Weak lensing group meeting, Frascati Italy-2013

Ripples in the cosmos conference, Durham UK -2013

Euclid general meeting, Leiden Netherlands-2013

XIst Cosmology school, Cargese France-2012

National Astronomy Meeting, Manchester UK-2012

Euclid kick off meeting, Edinburgh UK-2012

Durham Edinburgh Extragalactic Workshop, Durham UK-2012

Young researcher's Forum, Durham UK 2011

Fourth TRR33 Cosmology Winter School, Italy-2010

10 years of cosmic shear conference, Edinburgh UK-2010

Third TRR33 Cosmology Winter School, Italy-2009

DUEL Cosmology and Lensing Summer School,Paris France-2009

International workshops on Gravitational Lensing Techniques, Tehran Iran, 2007, 2008

Programming Skills

Expert C++ (6 years continuous experience) and Matlab (4 years) programmer

Skilled in Python and Mathematica

Teaching Experience

Edinburgh University:

Teaching:

Weak gravitational lensing course for graduate students

lectures on cosmic shear analysis from theory to observations

Teaching assistance:

Maths for physics, General relativity (twice)

Algebra and Calculus, Dynamics and Vector calculus

Statistics and Fourier analysis

Bonn University, Teaching assistance:

Cosmology for Graduate students (twice)

Gravitational Lensing for Graduate students

Organizational Activities:

Large Scale Structure weekly journal clubs, Edinburgh

Statistics Reading Group, Edinburgh

Euclid kick-off meeting, Edinburgh (Local)

Public Outreach:

Open day at royal Observatory Edinburgh, where over 3000 members of the public visited the observatory. I took part in a multimedia show about the violent Universe.

Contribution to an Android app for observing exoplanets. I came up with the initial plan and design of the app, Edinburgh.

Several Activities during the international astronomy day, Tehran, Iran.