

Curriculum Vitae

SARAH JABBARI

PhD student

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Birthday: 31 March 1981, Zanjan, Iran

Nationality: Iranian

Education

Since 2012 **PhD Student (employment)** at NORDITA and Department of Astronomy, Stockholm University, Sweden.

Supervisors: Prof. Axel Brandenburg, Prof. Göran Scharmer

Thesis: Origin of Solar Surface Activity and Sunspots

Expected date of defence: **20 May 2016**

May 2014 **Licentiate degree**, Department of Astronomy, Stockholm University, Sweden

2007-2009 **Master of Science:** Zanjan University, Zanjan, Iran

Supervisors: Prof. S. Nasiri and Dr. H. Safari

Thesis: Magneto hydrodynamic waves in curved and low β plasma solar coronal loops

M. Sc. GPA: 18.17/20 with Grade of Final thesis: 19.5/20 (excellent) and First rank of the graduate students.

2001-2006 **Bachelor of Science:** University of Kurdistan, Sanandaj, Kurdistan, Iran

Research Interests

- **Solar physics**, more specific: Solar dynamo, Solar activity, Active regions and Sunspot formation, Solar corona heating problem, convection and turbulence, Solar terrestrial science, Solar magnetic fields, space weather
- **Plasma physics**, Magnetohydrodynamic (MHD), plasma instabilities, turbulence, reconnection

Technics and methods:

- Analytical/theoretical methods
- Simulations
- Observations (Helioseismology, data analysis, Image processing)

Publications

1. Turbulent reconnection of magnetic bipoles in stratified turbulence
Jabbari, S., Brandenburg, A., Mitra, D., Kleeorin, N. and Rogachevskii, I., submitted (revised in response to referee's comments), MNRAS, arXiv:1601.08167, (2016)
2. Bipolar magnetic spots from dynamos in stratified spherical shell turbulence
Jabbari, S., Brandenburg, A., Kleeorin, N., Mitra, D. and Rogachevskii, I., ApJ, 805, 166(2015)
3. Magnetic flux concentrations from dynamo-generated fields
Jabbari, S., Brandenburg, A., Losada, I. R., Kleeorin, N. and Rogachevskii, I., A&A, 568, A112 (2014)
4. Mean-field and direct numerical simulations of magnetic flux concentration from vertical field
Brandenburg, A., Gressel, O., **Jabbari, S.**, Kleeorin, N. and Rogachevskii, I., A&A, 562, A53 (2014)
5. Surface flux concentration in a spherical α^2 dynamo
Jabbari, S., Brandenburg, A., Kleeorin, N., Mitra, D. and Rogachevskii, I., A&A, 556, A106 (2013)

Presentations (selected)

- Solar workshop on the Sun's Chromosphere, NSO/LASP, Boulder, CO, USA, 15-18 March 2016 (contribution: talk)
- Dynamics Days Europe 2015, University of Exeter, UK, 6 -10 September 2015, (contribution: talk)
- IAU general assembly 2015, Honolulu, Hawaii, 3 – 14 August 2015, (contribution: talk)
- Pencil Code Meeting 2015, Trondheim, Norway, 11-14 May, 2015, (contribution: talk)
- AGU fall meeting 2014, San Francisco, USA, 15 – 19 December 2014, (contribution: poster)
- MHD days, Potsdam, Germany, 2 – 4 December 2014, (contribution: talk)
- Conference on Coupling and Dynamics of the Solar Atmosphere, Pune, India, 9 - 14 November 2014, (contribution: talk)
- 17th Young Scientist Conference on Astronomy and Space, Kiev, Ukraine, 26 April- 3 May, 2010, (contribution: talk)

Participations

- SpaceIn School on Astro/Heliioseismology and stellar/solar physics, Saclay, France, 26 – 28 October 2015
- Heliophysics Summer School, Boulder, Colorado, USA, 28 July - 4 August 2015
- School on Fundamental Astrophysics, Sao Paulo, Brazil, 7-18 October 2013
- NIBIA Summer school on Computational Astrophysics, Copenhagen, Denmark, 23-25 Aug., 2013
- Plasma winter school on the future of plasma astrophysics, Les Houches, France, 25 February – 8 March 2013
- NORDITA winter school on High energy Astrophysics, Stockholm, Sweden, 7- 18 January 2013
- CESRA summer school on solar radio physics, Paris observatory, France, 20- 25 September 2010
- School on Astrophysical Turbulence and Dynamos, ICTP, 20-30 April 2009, Trieste, Italy
- I was marker (jury member) in the third Olympiad of Astronomy and Astrophysics, Iran 2009.

Scientific visits:

- November 2014, one week visit to Prof. Kandaswamy Subramanian in IUCAA, Pune, India
- September 2015, three days visit to Prof. Alexander Schekochihin in Merton College, Oxford, UK

Awards and grants:

- 2014 C F Liljevalch travel grant to attend ESP14, Dublin, Ireland.
Dahlmark grant to attend Conference on Coupling and Dynamics of the Solar Atmosphere, Pune, India
Jubilee donation and the Knut and Alice Wallenberg Foundation to attend AGU 2014 fall meeting.
- 2015 Donation scholarships to attend Dynamics Days Europe 2015, Exeter, UK
- 2016 Zirin SPD Studentship Award to attend SPD 2016 meeting, Boulder, Co, USA

Teaching Experience

I have been teaching general (basic) physics and lab in Zanjan University of Medical Sciences in Zanjan, Iran from 2005 to 2012. These courses are taught to Radiology, Professional Health and Lab sciences students. Beside I have taught general (basic) physics to (power, mechanic and mine) engineering students. I worked and taught in physic laboratory for 5 years. I also was research assistant in Zanjan University for 3 years (2009-2012).

Computer Skills

- Operating systems: Microsoft Windows, Linux, and Mac.
- Programming language/visualisation: Fortran, IDL (SSW), MATLAB, Python (beginner), Html (beginner)
- Scientific software: Mathematica, Maple, Paraview, Latex, Microsoft Office and Photoshop.
- Advanced Code: Pencil Code

Language

- Azeri (native language)
- Persian (national language)
- English, well reading and writing, good speaking
- Turkish (intermediate)
- Swedish (beginner)

References

Prof. Axel Brandenburg, JILA and Department of Astrophysical and Planetary Sciences, Box 440, University of Colorado, Boulder, CO 80303, USA. E-mail: Axel.Brandenburg@lasp.colorado.edu , brandenb@nordita.org

Prof. Göran Scharmer, Stockholm University, Department of Astronomy, 10691, Stockholm, Sweden. E-mail: scharmer@astro.su.se

Prof. Igor Rogachevskii, Department of Mechanical engineering, Ben-Gurion University of the Negev, POB 653, Beer-Sheva 84105, Israel. E-mail: gary@bgu.ac.il

Dr. Dhrubaditya Mitra, Nordita, Albanova University Center, Roslagstullsbacken 23, 10691, Stockholm, Sweden. E-mail: dhruba@nordita.org