

BIBLIOGRAPHY

Orcid ID : 0000-0003-3469-236X

E-mail : seray.sahin@antalya.edu.tr

1. **Full Name:** SERAY ŞAHİN SOLAKCI
2. **Date of Birth:** 20.12.1993
3. **Title:** Dr.
4. **Education:** Ph.D.

Academic Degree	Department	University	Year
B.Sc.	Space Science and Technologies	University of Akdeniz	2012 – 2026
B.Sc.	Physics	University of Akdeniz	2018 – 2021
M.Sc.	Space Science and Technologies	University of Akdeniz	2016 – 2019
Ph.D.	Space Science/Solar Physics	University of Northumbria at Newcastle	2020 – 2023

5. Publications

5.1. Articles Published in International Peer-Reviewed Journals (SCI, SSCI, Arts and Humanities)

1. **Sahin, S.** and Antolin, P., 2024. From Chromospheric Evaporation to Coronal Rain: An Investigation of the Mass and Energy Cycle of a Flare. *The Astrophysical Journal*, 970(2) 106. DOI: 10.3847/1538-4357/ad4ed9
2. **Şahin, S.** and Antolin, P., 2024. Liquid sunshine: drizzle, showers & torrential rain on the Sun. *Astronomy & Geophysics*, 65(2), pp.2-26. DOI: 10.1093/astrogeo/atae017
3. **Şahin, S.**, Antolin, P., Froment, C. and Schad, T.A., 2023. Spatial and Temporal Analysis of Quiescent Coronal Rain over an Active Region. *The Astrophysical Journal*, 950(2), p.171. DOI: 10.3847/1538-4357/acd44b
4. **Şahin, S.** and Antolin, P., 2022. Prevalence of Thermal Nonequilibrium over an Active Region. *The Astrophysical Journal Letters*, 931(2), p.L27. DOI: 10.3847/2041-8213/ac6fe9
5. Antolin, P., Martínez-Sykora, J. and **Şahin, S.**, 2022. Thermal Instability–Induced Fundamental Magnetic Field Strands in the Solar Corona. *The Astrophysical Journal Letters*, 926(2), p.L29. DOI: 10.3847/2041-8213/ac51dd
6. Nived, V.N., Scullion, E., Doyle, J.G., Susino, R., Antolin, P., Spadaro, D., Sasso, C., **Sahin, S.** and Mathioudakis, M., 2022. Implications of spicule activity on coronal loop heating and catastrophic cooling. *Monthly Notices of the Royal Astronomical Society*, 509(4), pp.5523-5537. DOI: 10.1093/mnras/stab3277
7. Yurchyshyn, V., Kilcik, A., **Şahin, S.**, Abramenko, V. and Lim, E.K., 2020. Spatial distribution of the origin of umbral waves in a sunspot umbra. *The Astrophysical Journal*, 896(2), p.150. DOI: 10.3847/1538-4357/ab91b8
8. **Şahin, S.**, Yurchyshyn, V., Kumar, P., Kilcik, A., Ahn, K. and Yang, X., 2019. Magnetic Field Dynamics and Varying Plasma Emission in Large-scale Coronal Loops. *The Astrophysical Journal*, 873(1), p.75. DOI: 10.3847/1538-4357/ab04aa
9. Kilcik, A., Yurchyshyn, V., **Sahin, S.**, Sarp, V., Obridko, V., Ozguc, A. and Rozelot, J.P., 2018. The evolution of flaring and non-flaring active regions. *Monthly Notices of the Royal Astronomical Society*, 477(1), pp.293-297. DOI: 10.1093/mnras/sty388

5.2. Articles Published in Other International Peer-Reviewed Journals

1. Antolin, P., Auchère, F., Ayres, T., Claes, N., Daley-Yates, S., Downs, C., Froment, C., Gronke, M., Hillier, A., Jardine, M., ..., **Sahin, S.**, and Johnston, C.D., 2023. Cool multiphase plasma in hot environments. *Bulletin of the American Astronomical Society*, 55. DOI: 10.3847/25c2cfef.afc57298
2. Schad, T., Anan, T., Fehlmann, A., Jaeggli, S., Tarr, L., Kuhn, J., Malanushenko, A., Paraschiv, A., Rempel, M., Antolin, P. and **Sahin, S.**, 2023. Resolving 3D Coronal Loop

Physics with Spectropolarimetry and Off-limb Solar Adaptive Optics. Bulletin of the American Astronomical Society, 55(3), p.355. DOI: 10.3847/25c2feb.783f2ee5

5.3. International Conference Presentations and Proceedings Publications

1. Rozelot, J.P., Kosovichev, A.G., Kilcik, A., **Sahin, S.**, Xu, Y., Javaraih, Georgieva, K. and Ozguc, A., 2022. Solar Gravitational Multipolar Moments: an up-to-date pedagogical approach. Implications for stellar properties. An Analytical Overview. DOI: 10.31401/SunGeo.2022.01.03

5.4 Articles Published in National Peer-Reviewed Journals

1. Kilcik, A. and **SAHIN, S.**, 2017. Possible variations in sunspot groups before flaring activity during solar cycles 23 and 24. Turkish Journal of Physics, 41(4), pp.351-358. DOI: 10.3906/fiz-1704-4

6. International Projects

1. Title: Observe Local Think Global: What Solar Observations can Teach us about Multiphase Plasmas across Astrophysical Scales
No: 545.
Role: Early Career Scientist
Institution: International Space Science Institute (ISSI)
Duration: 2022 – 2024

7. National Projects

1. Title: Fine structures inside a sunspot umbra and penumbra and investigation of their dynamics
No: 117F145
Role: Research Fellow
Institution: TUBITAK
Duration: 2017 – 2019
2. Title: Investigation of the variations on the sunspot groups before and after the solar flare
No: 115F031
Role: Research Fellow
Institution: TUBITAK
Duration: 2012 – 2016

8. Honours and Awards

1. UKSP ECR Poster Prize (Haziran 2023) – National Astronomy Meeting
2. METCALF Travel Award (Eylül 2022) – Hinode-15/IRIS-12 Conference
3. ESPM 16th Student Poster 3rd Prize (Eylül 2021) – European Solar Physics Meeting

9. Invited Talks

1. RAS Specialist Discussion Meeting - Non-Equilibrium Thermodynamics in the Solar Atmosphere and Interior: London/UK, 11 Oct 2024
2. COSPAR 2024 45th Scientific Assembly: Busan/Korea, 13-21 July 2024
3. 11th Coronal Loops Workshop: Canary Island/Spain, 25-28 June 2024
4. The Coronal Cooling Conference: rain, prominences, and eruptions: Lueven/Belgium, 21-24 May 2024

10. International Conference Participation and Presentations (Oral/Poster)

1. Hinode-16/IRIS-13 Meeting: Niigata/Japan, 25-29 Sep 2023
2. National Astronomy Meeting 2023: Cardiff/UK, 3-7 Jul 2023
3. Waves and Instabilities in the Solar Atmosphere: Newcastle/UK, 20-23 June 2023
4. Multiphase plasmas across scales: Bern/Switzerland, 13-17 March 2023
5. Hinode-15/IRIS-12: Prague/Czech Republic, 19-23 Sep 2022
6. National Astronomy Meeting 2022: 2 Talks, Coventry/UK, 10-15 Jul 2022

7. 10th Coronal Loops Workshop: Paris/France, 28 June - 1 July 2022
8. Solar Orbiter School 2022: Sete/France, May 2022 – Jun 2022
9. Hinode-14/IRIS-11 Joint Science Meeting: Online, 25-28 Oct 2021
10. 16th European Solar Physics Meeting: Online, 6-10 Sep 2021
11. National Astronomy Meeting 2021: Online 19-23 Jul 2021
12. High Resolution Solar Physics: Online, 30 Aug – 3 Sep 2021
13. Statistics for Astronomers XVI: Online 1 - 5 Jun 2021
14. Solar-Stellar Connection: Online, 14-18 Sep 2020
15. International Space Weather Initiative Workshop: Trieste/Italy 20 – 24 mAY 2019
16. The international space weather initiative school: Baku/Azarbaijan, 8 – 12 Oct 2018

11. Services in National and International Committees

1. National Astronomy Meeting 2023: Cardiff/UK, 3 – 7 July 2023: Organising Session: Prominences and Coronal Rain: formation, evolution, and energy transport
2. Waves and Instabilities in the Solar Atmosphere: Newcastle/UK, 20 – 23 June 2023: Local Organising Committee
3. 5th IAGA Workshop on Vertical Coupling in the Atmosphere/Ionosphere System: Antalya/Türkiye, 11 – 15 Aug: Local Organising Committee

12. Refereeing and Editorial Experience

1. Guest Editor: Solar Physics (Topical Issue – Coronal Cooling: rain, prominences and eruptions)
2. Referee: The Astrophysical Journal

13. Undergraduate and Graduate Courses Taught in the Last Two Years

Academic Year	Semester	Course Title	Weekly Hours	Number of Students
2024 – 2025	Fall	Physics 101	3	90
		Physics 102	3	114
		ENEN 401 (Academic Writing and Presentation)	3	65