## Ekaterina Dineva

## List of Publications

## Refereed Journals

- 2025 H.J. Jeong, S. Poedts, H. Wang, **E. Dinvea**, P. Gonidakis, F. Carella, G. Miloshevich, L. Linan, and H. Lee: Prediction of Time-evolving Radial Magnetic Fields on the Solar Surface Using Deep Learning *The Astrophysical Journal Letters*, **989**, id.L32, 2
- 2025 P. Vong, L.R. Dolla, A. Koukras, J. Gustin, J. Amaya, **E. Dinvea**, and G. Lapenta: Bypassing the Static Input Size of Neural Networks in Flare Forecasting by using Spatial Pyramid Pooling *Astronomy & Astrophysics*, **695**, id.A65, 21
- 2025 **E. Dinvea**, G. Miloshevich, J. Magdalenić, J. Amaya, and G. Lapenta: Parametrization of SHARP Vector Magnetic Field Using Disentangled Representation Learning. *Astronomy & Astrophysics*, in prep
- 2025 **E. Dinvea**, G. Miloshevich, J. Magdalenić, S. Poedts, and G. Lapenta: Flare Forecasting Based on Machine Learning Parametrization of Photosperic Vector Magnetic Field Images. *Solar Physics*, in prep
- 2024 I. Kontogiannis1 A.G.M. Pietrow, M.K. Druett, E. Dineva, M. Verma, and C. Denker: Solar Active Region Evolution and Imminent Flaring Activity Through Color-coded Visualization of Photospheric Vector Magnetograms. Astronomy & Astrophysics 691, id.A119, 10
- 2024 K.G. Strassmeier, I. Ilyin, M. Woche, F. Dionies, M. Weber, A. Järvinen, C. Denker, E. Dineva, M. Verma, T. Granzer, W. Bittner, S. Bauer, J. Paschke, H. Önel: Solar Disk Integration Polarimeter: An Automated Disk-integration full-Stokes-vector Solar Feed for the Potsdam Echelle Polarimetric and Spectroscopic Instrument Spectrograph. Astronomische Nachrichten 345, id. e20240033
- A. Pietrpw, M. Cretignier, M. Druett, J.D. Alvarado-Gómez, S. Hofmeister, M. Verma, R. Kamlah, M. Bartella, E. Alvarado-Gómez, I. Kontogiannis, **E. Dineva**, A. Warmuth, C. Denker, K. Poppenhaeger, O. Andriienko, X. Dumusque, and M.G. Löfdahl: A Comparative Study of Two X2.2 and X9.3 Solar Flares Observed with HARPS-N. Reconciling Sun-as-a-star Spectroscopy and High-spatial Resolution Solar Observations in the Context of the Solar-stellar Connection. *Astronomy & Astrophysics* **682**, id.A46, 20
- 2024 **E. Dineva**, C. Denker, K.G. Strassmeier, I. Ilyin, and I. Milic: High-Resolution Sun-as-a-Star Spectroscopy of the Partial Solar Eclipse of 2017 August 21. *Solar Physics* **299**, id.123
- 2023 H. Baeke, J. Amaya, **E. Dineva**, G. Miloshevich, and G. Lapenta: Classification of Solar Flares using Data Analysis and Clustering of Active Regions. *Solar Physics*, in prep
- 2023 **E. Dineva**, C. Denker, I. Kontogiannis, M. Steffen, and M. Verma: Classification Based on Machine Learning of Fe I 7090 Å Spectra Derived from CO<sup>5</sup>BOLD Simulations. *Astrophysical Journal Supplement*, in preparation
- 2023 C. Denker, M. Verma, A. Wisniewska, B. Kamlah, I. Kontogiannis, E. Dineva, J. Rendtel, S. Bauer, M. Dionies, H. Önel, M. Woche, C. Kuchein, T. Seelemann, P. S. Pal: Improved High-resolution Fast Imager *JATIS*, id.015001

- 2023 X. Alexoudi, E. Dineva, S. Barnes, and K.G. Strassmeier: Comparative study of nearly-grazing and fully-grazing exoplanet system parameters derived with TESS and ground-based instruments. Astronomische Nachrichten/Astronomical Notes, 344, id. e20220075
- 2022 C. Quintero Noda, R. Schlichenmaier, L. R. Bellot Rubio4, et. al: The European Solar Telescope. *Astronomy and Astrophysics*, **666**, id.A21, 36
- 2022 **E. Dineva**, J. Pearson, I. Ilyin, M. Verma, A. Diercke, K.G. Strassmeier, and C. Denker: Characterization of Chromospheric Activity Based on Sun-as-a-Star Spectral and Disk-Resolved Activity Indices. *Astronomische Nachrichten/Astronomical Notes* **343**, id. e23996
- 2022 A. Diercke, C. Kuckein, P.W. Cauley, K. Poppenhäger, J.D. Alvarado-Gómez, **E. Dineva**, and C. Denker: Solar  $H\alpha$  Excess during Solar Cycle 24 from Full-Disk Filtergrams of the Chromospheric Telescope. *Astronomy and Astrophysics*, **661**, 14
- 2021 M. Verma, G. Matijevic, C. Denker, A. Diercke, C. Kuckein, **E. Dineva**, H. Balthasar, I. Kontogiannis, and P.S. Pal: Classification of High-resolution Solar H $\alpha$  Spectra Using t-distributed Stochastic Neighbor Embedding. *The Astrophysical Journal* **907**, 14
- 2020 E. Dineva, M. Verma, S.J. González Manrique, P. Schwartz, and C. Denker: Cloud Model Inversions of Strong Chromospheric Absorption Lines Using Principle Component Analysis. Astronomische Nachrichten/Astronomical Notes 341, 64
- 2020 I. Kontogiannis, E. Dineva, A. Diercke, M. Verma, C. Kuckein, H. Balthasar, and C. Denker: High-resolution Spectroscopy of an Erupting Minifilament and its Impact on the Nearby Chromosphere. Astrophysical Journal 898, 144
- 2020 M. Verma, C. Denker, A. Diercke, C. Kuckein, H. Balthasar, E. Dineva, I. Kontogiannis, P.S. Pal, and M. Sobotka: High-resolution Spectroscopy of a Surge in an Emerging Flux Region. Astronomy and Astrophysics 639, 12
- 2018 C. Denker, E. Dineva, H. Balthasar, M. Verma, C. Kuckein, A. Diercke, and S.J. González Manrique: Image Quality in High-resolution and High-cadence Solar Imaging. Solar Physics 293, 24
- 2018 C. Denker, C. Kuckein, M. Verma, S.J. González Manrique, H. Enke, A. Diercke, J. Klar, H. Balthasar, R.E. Louis, and E. Dineva: Data Analysis and Management for High-resolution Solar Physics Image Restoration and Imaging Spectroscopy at the GREGOR Solar Telescope. The Astrophysical Journal Supplements 236, 12
- 2018 X. Alexoudi, M. Mallonn, C. van Essen, J.D. Turner, E. Keles, J. Southworth, I. Mancini, T. Granzer, C. Denker, E. Dineva, and K.G. Strassmeier: Deciphering the Atmosphere of HAT-P-12b: Solving Discrepant Results. Astronomy and Astrophysics 620, 142

## Conference Proceedings

- 2020 E. Dineva, C. Denker, K.G. Strassmeier, I. Ilyin, and A. Pevtsov: Monitoring Solar Activity with PEPSI, In: M.T. Lago (eds.), IAU 30th General Assembly, Focus Meeting 9, Solar Irradiance: Physics-based Advances, Proxies of Long-term Solar Magnetic Activity, Astronomy in Focus XXX, Proceedings of the IAU, pp. 351–353
- 2020 E. Dineva, C. Denker, K.G. Strassmeier, I. Ilyin, and I. Milic: Sun-as-a-star Observations of the 2017 August 21 Solar Eclipse. In: A. Kosovichev, K.G. Strassmeier, and M. Jardine (eds.), Solar and Stellar Magnetic Fields: Origins and Manifestations, *Proceedings IAU Symposium* 354, pp. 473–480

2013 **E. Dineva**, V. Atanasov: The Technical Analysis of the Stock Exchange and Physics: Japanese Candlesticks for Solar Activity. In: I. Zhelyazkov and T.M. Mishonov (eds.), *American Institute of Physics Conference Series* **1551**, pp. 165–169