Curriculum Vitae for Trifon Trifonov

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Education

2014 - Ph.D., Astronomy, Ruprecht-Karls-Universität, Heidelberg, Germany
2009 - M.A., Astronomy and Astrophysics, Sofia University, Sofia, Bulgaria
2008 - B.A., Physics, Sofia University, Sofia, Bulgaria

PhD Dissertation

Planetary dynamics and high precision optical and near infrared spectroscopy. Testing the planetary hypothesis around evolved K-giants.
supervisor: Andreas Quirrenbach

Previous academic

2014–2016, Postdoctoral Research Associate at the Department of Earth Science at the University of Hong Kong
with Man Hoi Lee

Current academic positions

2016–now, Postdoctoral Research Associate at Max Planck Institute for Astronomy (MPIA).
with Thomas Henning and Martin Kürster

Fellowships

2010–2014, International Max Planck Research School for Astronomy (IMPRS-HD) fellowship.
2014-2014, Heidelberg Graduate School of Fundamental Physics (HGSFP) fellowship.

Research work

Search of extrasolar planets via precise Doppler spectroscopy around low-mass Main Sequence stars and evolved intermediate-mass G and K-giant stars.
Dynamical analysis of multiple exoplanetary systems and S-type planet-binary systems.
Observations, RV data reduction and analysis, Scientific software tools development.

Successful Observ. Proposals

ESO CRIRES, VLT, Chile
IDs: 088.D-0132, 089.D-0186, 090.D-0155 and 091.D-0365 (main Co-PI)

ESO HARPS, La Sila, Chile
IDs: 097.C-0090, 0100.C-0414, 0101.C-0232, 0102.C-0338, 0103.C-0548 (PI)

MPG FEROS, La Sila, Chile
IDs: 099.A-9009, 0100.A-9006, 0103.A-9011 (PI)

CAHA CARMENES, Calar Alto, Spain
IDs: F17-3.5-019, F18-3.5-016 (PI)

ESO SPHERE, VLT, Chile
IDs: 0101.C-0887 (main Co-PI)

Conference poster contributions	2013 - IAU Symposium 299: Exploring the Formation and Evolution of Planetary Systems, Victoria, Canada 2013 - Protostars and Planets VI, Heidelberg, Germany 2015 - Extreme Solar Systems III, Hawaii, USA
Conference talk contributions	2015 - Triple Evolution & Dynamics in Stellar and Planetary Systems, Haifa, Israel 2016 - 5th CARMENES scientific meeting, Heidelberg, Germany 2017 - Formation and Dynamical Evolution of Exoplanets, Aspen, Colorado, US 2017 - Annual Meeting of the Astronomische Gesellschaft, Göttingen, Germany 2017 - Exoplanets and Planet Formation, Shanghai, China 2018 - Exoplanets II, Cambridge, UK 2018 - Japanese-German meeting on Exoplanets and Planet Formation, Edesheim, Ger. 2018 - 9th CARMENES scientific meeting, Barcelona, Spain 2019 - 10th CARMENES scientific meeting, Seville, Spain
Invited science talks	2014 - Königstuhl Colloquium (KoCo), Heidelberg, Germany 2014 - Dep. of Physics and Astronomy, Aarhus University, Denmark (Postdoc interview) 2014 - Dep. of Astronomy, University of Szczecin, Poland (Postdoc interview) 2014 - Dep. of Astrophysics, Tel Aviv University, Israel (Postdoc interview) 2014 - DES seminar and the University of Hong Kong, Hong Kong 2016 - National Academy of Science of Ukraine at MAO, Kiev, Ukraine 2017 - Thüringer Landessternwarte, Tautenburg, Germany 2018 - ESO, Vitacura, Santiago, Chile 2019 - ARI colloquium, Heidelberg, Germany + various department talks at LSW, HKU and MPIA
Invited public talks	2018 - "Exoplanet systems: Chaos and order around the stars", The Department of Astronomy at the University of Sofia, Bulgaria
Organization of international conferences	2019 - Planetary Dynamics Conference, Heidelberg, Germany – SOC member & main organizer (ongoing)
Scientific software	**R**adial**V**elocity **mod**eling (**RVmod**) & **T**ransit and **R**adial velocity **I**nteractive **F**itting tool for **O**rbital analysis and **N**-body simulations (**TRIFON**) see: `https://github.com/3fon3fonov/trifon`
Teaching experience	2011–2013 Assistant of Observational Astronomy Course, Heidelberg University
Regular scientific referee	Astronomy & Astrophysics (A&A), AAS Journals (ApJ/AJ), Monthly Notices of the Royal Astronomical Society (MNRAS), Nature Astronomy

Relevant papers

Mitchell, D. S., Reffert, S., **Trifonov**, **T**., et al. (2013, A&A 555, 87): *Precise radial velocities of giant stars. V. A brown dwarf and a planet orbiting the K giant stars τ Geminorum and 91 Aquarii*

Trifonov, **T**., et al. (2014, A&A 568, 64): *Precise radial velocities of giant stars. VI. Discovery and stability analysis of the planetary system around the K giant star η Cet*

Reffert, S., Bergmann, C., Quirrenbach, A., **Trifonov, T**., et al. (2015, A&A 574, 116): *Precise radial velocities of giant stars. VII. Occurrence rate of giant extrasolar planets as a function of mass and metallicity*

Kürster, M., **Trifonov, T**., et al. (2015, A&A 577, 103): *Disentangling 2:1 resonant radial velocity orbits from eccentric ones and a case study for HD 27894*

Trifonov, T., et al. (2015, A&A 582, 54): *Precise radial velocities of giant stars VIII. Testing for the presence of planets with CRIRES Infrared Radial Velocities*

Ortiz, M,. Reffert, S., **Trifonov, T.**, et al. (2016, A&A, 595, 55): *Precise radial velocities of giant stars. IX. HD 59686 Ab: a massive circumstellar planet orbiting a giant star in a 13.6 au eccentric binary system*

Trifonov, T., et al. (2017, A&A, 602L, 8): *Three planets around HD 27894: A close-in planet pair with a 2:1 period ratio and an eccentric Jovian planet at 5.4 AU*

Trifonov, T., et al. (2018a, A&A, 609, 117): *The CARMENES search for exoplanets around M dwarfs. First visual-channel radial-velocity measurements and orbital parameter updates of seven M-dwarf planetary systems*

Trifonov, T., et al. (2018b, AJ, 155, 174): *Dynamical Analysis of the Circumprimary Planet in the Eccentric Binary System HD 59686*

Sarkis, P., Henning, Th., Kürster, M., **Trifonov, T**., et al. (2018, AJ, 155, 257): *The CARMENES Search for Exoplanets around M Dwarfs: A Low-mass Planet in the Temperate Zone of the Nearby K2-18*

Kaminski, A., **Trifonov, T**., et al. (2018, A&A, 618, 115): *The CARMENES Search for Exoplanets around M Dwarfs: A Neptune-mass planet traversing the habitable zone around HD 180617*

Tal-Or, L., **Trifonov, T**., et al. (2018, MNRAS, 484L, 8): *Correcting HIRES radial velocities for small systematic errors*

Trifonov, T., et al. (): *New HARPS and FEROS Observations of GJ 1046*

Ribas, I., Tuomi, M., Reiners, A., Butler, R. P., ... **Trifonov, T**., ... et al. (2018, Natur, 563, 365): *A super-Earth planet candidate orbiting at the snow-line of Barnard's star*

Wang, S., Jones, M., Shporer, A., Fulton, B. J., Paredes, L., **Trifonov, T**., et al. (2019, 157, 51): *HD 202772 Ab: A Transiting Hot Jupiter Around A Bright, Mildly Evolved Star In A Visual Binary Discovered By Tess*

Luque, R., Nowak, G., Pallé, E., Kossakowski, D., **Trifonov, T**., et al. (2018, A&A, 620, 171): *The CARMENES search for exoplanets around M dwarfs: The warm super-Earths in twin orbits around the mid-type M dwarfs Ross 1020 (GJ 3779) and LP 819-052 (GJ 1265)*

Trifonov, T., et al. (2019, A&A, 622L, 7): *TESS exoplanet candidates validated with HARPS archival data. A massive Neptune around GJ 143 and two Neptunes around HD 23472*

Trifonov, T., et al. (2019, AJ, 157, 93): *Two Jovian planets around the giant star HD 202696. A growing population of packed massive planetary pairs around massive stars?*