



PEIJIN ZHANG

Ph.D.

RESEARCH INTEREST

- Observation of the solar radio burst
- Radio astronomy
- Emission mechanisms and wave propagation effects of the radio bursts

SKILLS & ABILITIES

- Programming: Python, IDL, C/C++, Fortran, MATLAB, LaTeX
- Language: Mandarin(native), English(Fluent communication, academic writing).

VITALS

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EDUCATION

- **Ph.D. of Science** | Solar Radio Physics
University of Science and Technology of China (USTC), Hefei, China [2017-09 ~ 2021-06]
Supervisor: ChuanBing Wang
- **Summer Research Program** | Solar Radio Physics
Netherlands Institute for Radio Astronomy (ASTRON)
Dwingeloo Netherlands [2019-06 ~ 2019-09]
Supervisor: Pietro Zucca
- **Bachelor** | Major: Earth and Space Science,
Minor: Computer Science
University of Science and Technology of China (USTC), Hefei China, [2013-09 ~ 2017-05]

WORK EXPERIENCE

- Postdoc Researcher, in project RadioCME, in Space Physics Research Group at the University of Helsinki. [2022-12~Now]
- Postdoc Researcher, in project STELLAR (H2020), Co-funded by BAS Bulgaria, ASTRON Netherlands, DIAS Ireland, and TUS Bulgaria. [2021-12 ~ 2022-12]
- Research Assistant, at USTC ChuanBing Wang's group [2021-06 ~ 2021-12]
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HONOR AND AWARDS

2022 URSI Young Scientist Award
2021 Dean's Award of the Chinese Academy of Sciences
2020 National scholarship for PhD student
2019 National scholarship for Master student
2018 Guanghua Award of USTC

PROFESSIONAL AFFILIATIONS

LOFAR Solar and Space Weather Key Science Project (Active member)
Community of European Solar Radio Astronomers (Member)
Chinese Society of Space Research (Member)

OPEN-SOURCE CONTRIBUTION

LOFAR-Sun-tools: Python package of LOFAR data processing tools

ACBone: A tool to obtain frequency drift line from dynamic spectrum

SEMP: Forward modeling method to measure the position and speed of interplanetary type III radio bursts

NorhBot: Machine learning tool to generate radio heliograph image from SDO/AIA data

CONFERENCE AND VISIT

<i>LOFAR Data School</i> (attend)	2018-09	ASTRON, Dwingeloo, Netherlands
<i>CESRA</i> (oral)	2019-07	AIP, Potsdam, Germany
<i>LOFAR SSW-KSP meeting</i> (invited talk)	2019-10	ASTRON, Dwingeloo, Netherlands
<i>Stellar Workshop</i> (oral)	2022-02	DIAS, Dublin, Ireland
<i>LOFAR-Birr</i> (visit)	2022-04	DIAS, Birr, Ireland
<i>URSI</i> (YS Award)	2022-05	Gran Canaria, Spain
<i>COSPAR</i> (poster)	2022-07	Athens, Greece

PUBLICATION

First Author

1. [PJ Zhang](#), CB Wang, L Ye *Astronomy & Astrophysics* 618, A165 (2018) A type III radio burst automatic analysis system and statistic results for a half solar cycle with Nançay Decameter Array data
2. [PJ Zhang](#), CB Wang, L Ye, Y Wang *Solar Physics* 294 (5), 1-20 (2019) Forward Modeling of the Type III Radio Burst Exciter
3. [PJ Zhang](#), SJ Yu, EP Kontar, CB Wang *The Astrophysical Journal* 885 (2), 140 (2019) On the source position and duration of a solar type III radio burst observed by LOFAR
4. [PJ Zhang](#), P Zucca, CB Wang, MM Bisi, B Dabrowski, RA Fallows, ... *The Astrophysical Journal* 891 (1), 89 (2020) The frequency drift and fine structures of Solar S-bursts in the high frequency band of LOFAR
5. [PJ Zhang](#), P Zucca, SS Sridhar, CB Wang, MM Bisi, B Dabrowski, ... *Astronomy & Astrophysics* 639, A115 (2020) Interferometric imaging with LOFAR remote baselines of the fine structures of a solar type-IIIb radio burst
6. [PJ Zhang](#), CB Wang, G Pu *Res. Astron. Astrophys.* 20 204 (2020) Generate Radioheliograph Image from SDO/AIA Data with Machine Learning Method

7. PJ Zhang, CB Wang, EP Kontar *The Astrophysical Journal* 909 195 (2021) Parametric simulation studies on the wave propagation of solar radio emission: the source size, duration, and position
8. PJ Zhang, P Zucca, K Kozarev, E Carley, CB Wang *The Astronomical Journal* 932, 17 (2022) Imaging of the Quiet Sun in the Frequency Range of 20-80 MHz

Co-author

9. ZJ Tong, CB Wang, PJ Zhang, J Liu *Physics of Plasmas* 24 (5), 052902 (2017) A parametric investigation on the cyclotron maser instability driven by ring-beam electrons with intrinsic Alfvén waves
10. Y Lu, L Xiong, Y Zhang, PJ Zhang, C Liu, S Li, J Kang *Circuit World* 0305-6120 (2018) Synchronization, anti-synchronization and circuit realization of a novel hyper-chaotic system
11. J Chen, R Liu, K Liu, AK Awasthi, PJ Zhang, Y Wang, B Kliem *The Astrophysical Journal* 890 (2), 158 (2020) Extreme-ultraviolet Late Phase of Solar Flares
12. M Ma, GM Calvés, G Cimò, PJ Zhang, et al *The Astronomical Journal* 162 (4), 141 (2021) VLBI data processing on coronal radio-sounding experiments of Mars express
13. B Dabrowski, P Flisek, K Mikuła, A Froń, C Vocks, J Magdalenic, A Krankowski, PJ Zhang, P Zucca, G Mann *Remote Sensing* 13 (1), 148 (2021) Type III Radio Bursts Observations on 20th August 2017 and 9th September 2017 with LOFAR Bałdy Telescope
14. W Su, TM Li, X Cheng, L Feng, PJ Zhang, PF Chen, MD Ding, LJ Chen, ... *The Astrophysical Journal* 929 (2), 175 (2022) Quantifying the Magnetic Structure of a Coronal Shock Producing a Type II Radio Burst