RENKUN KUANG

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RESEARCH INTERESTS

Microlensing, Strong Lensing, Plasma Lensing, Radio Interferometry, Propagation Effects in Radio Observations, Radio Data Reduction Algorithms

EDUCATION

Tsinghua University   China, *Sep 2018 - Present*
Ph.D. candidate in the Department of Engineering Physics and Department of Astronomy
Supervisor: Shude Mao
Technical University of Munich   Germany, *Oct 2017 - Mar 2018*
Visiting student
Harbin Institute of Technology   China, *Sep 2014 - Jun 2018*
B.E., Aerospace Science and Technology, School of Astronautics

RESEARCH EXPERIENCIES

Scattering Effects in Radio Observations of the CLASS B0128+437 Strong Lensing system
Nov 2020 - Present
Reducing VLBA 1.6 GHz data of the B0128+437 system, combined with other existing observations, to reconstruct the lens and source properties and to evaluate the strength of the scattering effect happened in this system.

Light Curve Calculations for Triple Microlensing Systems   *Jan 2020 - Nov 2020*
Among those (~ 130) planets discovered by microlensing method, nearly 10% are in triple-lens systems. However, an efficient method to calculate light curves of triple microlensing systems is absent. We developed a contour integration based method to mitigate this situation. We made our code publicly available.

Computer Vision   *Mar 2018 - Oct 2019*
Image super-resolution; Machine vision based automatic detection and measuring.

INTERNSHIP EXPERIENCIES

China Academy of Engineering Physics   China, *Jun 2021 - Jul 2021*

PUBLICATION

Renkun Kuang, Shude Mao, Tianshu Wang, Weicheng Zang & Richard J. Long, *Light Curve Calculations for Triple Microlensing Systems*, 2021, MNRAS

TECHNICAL STRENGTHS

Programing   Python, Matlab, C/C++
Softwares & Tools   Mathematica, CASA