Yisi Liu

Gender: Male
Age: 22
Academic Interest: Mathematical Physics

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EDUCATION

•B.Sc. in School of Physics and Astronomy, Sun Yat-sen University *2020.9-2024.7*
Major in Physics GPA:4.1571/5 Rank: 8/123(6.5%)

•B.Sc. in School of Mathematics(ZhuHai), Sun Yat-sen University *2022.9-2024.7*
Minor in Mathematics and Applied Mathematics GPA: 4.3250/5

•PH.D in Shanghai Institute for Mathematics and Interdisciplinary Sciences, Fudan University *2024.9-2029.7*
Major in Mathematical Physics

ACADEMIC INTEREST AND ACQUIRED KNOWLEDGE

•Academic Interest: Mathematical Physics and Theoretical Physics. Especially interested in quantum gravity. Also interested in QFT and string theory. Now I focus on constructing a 'perfect' QFT in Feynman geometry, especially for gauge fields.

•Acquired Physics: QFT, Classical Mechanics, Electrodynamics, Statistical Mechanics, Quantum Mechanics, General Gravity.

•Acquired Math: Lie Groups and Lie Algebras, Differential Geometry, Functional Analysis, Real Function, Complex Function, ODE, PDE, a little Riemannian Geometry.

SUMMER SCHOOL

•GRID Summer Camp 2022 *2022.8-2022.9*
Summer Camp for GRID members, organized by TsingHua University

– What I Learned: method of processing GRB data to get energy spectrum and light curve

•The 3rd Frontier Summer Lectures of Strings, Fields and Holography *2023.8.21-2023.8.27*
Organized by Shing-Tung Yau Center of Southeast University

– What I Learned: Integrability;Basics on AdS/CFT;Spacetime with cosmological constant.

SCIENTIFIC RESEARCH EXPERIENCE

•The Gamma Ray Integrated Detectors(GRID) team of Sun Yat-sen University *2021.9-2023.1*
A student project on studying gamma ray burst(GRB), launched by Tsinghua University in 2015.

– My Duty: Leader of Theory Group
– My Work: Studying the theoretical models, Simulating the motion of photons via Geant4, Data processing

•The Feasibility Analysis of Solar Wind Measurement Using GRID Satellite *2021.12-2022.12*
2021-2022 innovation program for college students

– My Duty: Leader of the team
– My Work: Simulating the motion of solar wind particles via Geant4, Designing the detector(GAGG scintillator)

AWARDS

•2021 Asia and Pacific Mathematical Contesst in Modeling(APMCM), Second Prize

•2021 The 11th MathorCup College Mathematical Modeling Challenge , First Prize

•2020-2021 Sun Yat-sen University Outstanding Scholarship, First Prize

•2021-2022 Sun Yat-sen University Outstanding Scholarship, Second Prize

•2021 Fourth National College Student Mathematics Competition Online Challenge, First Prize