

Physics

Newsletter

April | 2024

New Member of the Department



Prof. Meng Gu

Assistant Professor
BSc. NJU; M.A., Ph.D. Harvard

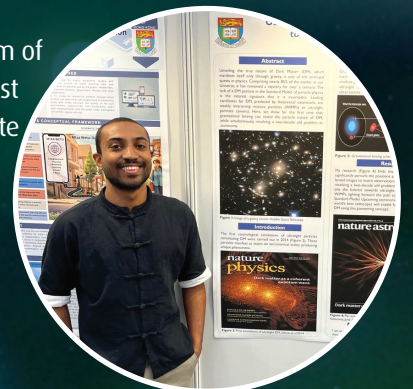
I am thrilled to join the community in the Department of Physics. Before joining HKU, I was a postdoctoral fellow at Carnegie Observatories, and a Henry Norris Russell postdoctoral fellow in the Department of Astrophysical Sciences at Princeton University. I am an observer and a specialist in stellar population synthesis modeling. My research focuses on galaxy formation and seeks to understand the physical mechanisms driving the complicated interplay between star formation and galaxy mass assembly.

Promotions, Awards, Research Highlights and Conference

- Prof. Zi Yang Meng has been promoted to Professor.
- Prof. Yao Wang is one of the New Cornerstone Investigators of 2023, <https://www.newcornerstone.org.cn/#/investigatorList>
- Prof. Zi Yang Meng's research group published one paper "Quantum criticality and entanglement for the two-dimensional long-range Heisenberg bilayer", Phys. Rev. B 109, L081114 (2024). It demystifies the effects of long-range interactions on physical systems and is chosen both as a Letter and Editors' Suggestion by the journal.
- Prof. Jane Lixin Dai has received the NSFC/RGC Joint Research Scheme (JRS) funding for "Investigating the Properties and Impacts of the Wind Launched from Black Hole Super-Eddington Accretion Flow".
- Articles about research featured on the front cover of Nature Astronomy, carried out by Prof. Lim's group and led by PhD student Amruth Alfred, have been published on the Graduate School Newsletter (https://gradsch.hku.hk/news_and_events/newsletter/research-team-led-physics-phd-student-reveals-nature-dark-matter), Faculty of Science Newsletter (<https://www.scifac.hku.hk/news/physics-phd-student-honoured-with-research-postgraduate-student-innovation-award-2023-24-for-insights-into-dark-matter-research>) and the HKU Bulletin ([https://www4.hku.hk/pubunit/Bulletin/ebook_2023Nov\(25.1\)/20-21/](https://www4.hku.hk/pubunit/Bulletin/ebook_2023Nov(25.1)/20-21/)).
- Dr. Alfred Amruth has won the Research Postgraduate Student Innovation Award (in the form of a research grant, to research postgraduate students across the entire university with the most exciting and innovative research ideas), Best Poster Presenter at the HKU Research Postgraduate Student Symposium 2024 (photo on the right) and 2023 Hong Kong Young Scientist Award (for best PhD research in Hong Kong within the Physical and Mathematical Sciences). The talk is on Youtube, <https://www.youtube.com/watch?v=Ixwjd92X1oQ>.

Other Staff Movement

- Ms. Queenie Yue has just joined the department as Clerk I.
- Dr. Kin Fung Lai has just joined the department as Technical Officer.
- Dr. Ka Kin Lam has just joined the department as Technical Officer.



Editors:

Dr. Kai-Ming Lee
Prof. Shizhong Zhang (acting)



<https://www.physics.hku.hk/>

Memory of a Three-week visiting in France

Editor note: PhD student Miss Xiaoxue Ran was invited under the support of ANR/RGC Joint Research Scheme of UGC (Project No. A_HKU703/22) to visit France. Here is her description of the scientific visit to Paris and Toulouse. More at https://gradsch.hku.hk/news_and_events/newsletter/memory-three-week-visiting-france

On November 1, 2023, PhD student Xiaoxue Ran and Postdoctoral Fellow Jiarui Zhao from the Department of Physics at HKU embarked on a three-week work and study experience in Europe.

They attended the "Quantum Information: Theory and Applications" conference held at CY Cergy Paris University in Cergy, a city located northwest of Paris, on November 2 and 3. Then, they traveled to Toulouse in the south of France to participate in a two-week academic exchange. Invited by their collaborators, Professor Fabien Alet and Professor Sylvain Capponi, they engaged in various discussions and exchanges with the members of the Condensed Matter Theory group at the Laboratoire de Physique Théorique (LPT) of the University of Toulouse III - Paul Sabatier.

During their stay, they had the chance to appreciate the beautiful architecture and natural landscapes of France while experiencing the cultural differences in people's ways of life. On November 18, carrying with them new knowledge and inspiration gained from their studies and discussions, they returned to Hong Kong. Although the three-week journey came to an end, their quest for knowledge continues.



Photo of Jiarui Zhao (far left), Xiaoxue Ran (third from right) with members of the Condensed Matter Theory group, Sylvain Capponi (second from left), Didier Poilblanc (far right), and Fabien Alet (second from right).



LPT, University of Toulouse III - Paul Sabatier



Banks of the Garonne River



Louvre Palace at night