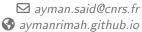
Ayman Rimah Said



Current employment

10/24- **Chargé de recherche au CNRS**, *Laboratoire Mathématiques de Reims*, Reims, United France

Academic professional experience

- 8/23-9/24 Research Associate, Cambridge University, Cambridge, United Kingdom
- 7/21 7/23 Griffiths Research Assistant Professor, Duke University, Durham, NC, USA
 - Spring 21 **Program Associate in the Mathematical Problems In Fluid Dynamics**, *MSRI*, *Berkeley*, USA
 - 9/18-6/21 PhD, ENS Paris Saclay, Paris, France
 - 9/19-9/20 **Teaching Assistant**, *Université de Paris Sud*, *Paris*, France
 - 9/18–9/19 **Teaching Assistant**, ENS Paris Saclay, Paris, France

Studies

- 9/18-6/21 **ENS Paris Saclay**, *Paris, France* Thesis:"On the regularity of the flow of the Euler system with free Boundary"
- 9/17-6/18 **École Polytechnique-Université de Paris Sud- Paris Saclay**, *Paris, France*Masters 2 in theoretical mathematics: M2 AAG, the Title of "Polytechnician Engineer".
- 9/14-3/17 **École Polytechnique**, *Paris* Generalist engineering diploma, Bachelors in mathematics and physics and Masters 2 in theoretical mathematics.
- 9/13–7/14 Classes préparatoires of lycée Hoche, Versailles, France Mathematics and Physics (MP*).

Funding

- 8/23-9/24 Research Associate at Cambridge University, funded by UKRI grant SWAT.
- 8/21–8/23 Phillip Griffiths Assistant Research Professor of Mathematics at Duke University, Partially funded by NSF grants DMS-2043024 and DMS-2124748.
- 9/18–9/21 **Doctoral Grant AMX, École Polytechnique**

Published Articles

- 1. A geometric proof to the Quasi-linearity of the Water-Waves system, SIAM Journal on Mathematical Analysis, 2023
- 2. On the Cauchy problem for dispersive Burgers type equations, Indiana University Mathematics Journal, 2023
- 3. On Paracomposition and change of variables in Paradifferential operators, Journal of Pseudo-Differential Operators and Applications, 2023
- 4. Regularity results on the flow map of periodic dispersive Burgers type equations and the Gravity-Capillary equations, Water Waves, 2023
- 5. **Logarithmic spirals for 2d perfect fluids**, *with I-J. Jeong*, Journal de l'École polytechnique Mathématiques, 2024

6. On the long-time behavior of scale-invariant solutions to the 2d Euler equation and applications, with T. M. Elgindi and R. M. Murray, Accepted, To appear in Les Annales de l'ENS

Preprints in the peer review process

- 7. **Wellposedness and singularity formation beyond the Yudovich class**, *with T. M. Elgingi and R. M. Murray*, arXiv preprint, arXiv:2312.17610
- 8. Small scale creation of the Lagrangian flow in 2d perfect fluids, arXiv preprint, arXiv:2401.06476
- 9. A quantitative DiPerna-Lions theory and mixing bounds for passive scalar transport, with L. Huysmans, arXiv preprint, arXiv:2402.11642
- 10. A Classification Theorem for Steady Euler Flows, Tarek M. Elgindi, Yupei Huang, and Chunjing Xie, arXiv preprint, arXiv:2408.14662