

Kelvin Salou-Smith

PERSONAL DETAILS

Date of birth 19/02/1999
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EDUCATION

Doctoral Student <i>LOMA, Université de Bordeaux</i> Machine Learning Methods in Quantum Frustrated Systems: Using Neural Quantum States to study a 3D version of a Shastry-Sutherland lattice. Methods of finding numerically exact results in 3D quantum systems are rare and we aim at optimizing the method so that these structures become accessible.	2024-Current
M2 International Center for Fundamental Physics <i>Ecole Normale Supérieure, Sorbonne Université</i> Grade: Bien Condensed Matter Track: Courses on theoretical tools in condensed matter such as QFT, Green's functions, advanced topics in Statistical Physics and Topological aspects of Condensed Matter, complemented by Machine Learning and Quantum Computation courses, to study matter in exotic phases. Numerical Project: Development of a Self-Supervised Model to detect phase transitions	2023-2024
M1 Fundamental Physics and Applications <i>Sorbonne Université</i> Grade: Très Bien General Physics Numerical Project: Development of a predictive model for the critical temperatures of superconductors	2022-2023
Bachelor's Degree in Physics <i>Université de Bretagne Occidentale</i> Grade: Très Bien. Bibliographic Project: The black hole information paradox. L2 Mathematics, L2 Physical-Chemistry, PACES	2017-2021
A-Levels (UK equivalent to Baccalaureate) <i>St. Aidans's & St. John Fisher Associated Sixth Form, England</i> Grade equivalence: Bien Achievements: Gold Medal in British Chemistry Olympiad, British Biology Olympiad and Senior Maths Challenge	2015-2017

WORK EXPERIENCE

Internship: Frustrated Magnetism on a deformed pyrochlore lattice <i>Laboratoire Ondes et Matière d'Aquitaine</i> Theoretical internship: studying a new lattice geometry for frustrated spins through numerical methods (Monte-Carlo Simulations, Exact Diagonalization) and some analytical methods to study the ground state properties of Classical Ising, Heisenberg and Quantum Heisenberg spins on the lattice.	April 2024 - Current
Internship: Study of charge and spin transport in thin molecular films <i>Laboratoire Matériaux et Phénomènes Quantiques</i> Experimental internship: Design and nanofabrication of circuits to study spin transport.	2023, 4 months
Projet: Oceanic thermohaline circulation <i>Laboratoire d'Océanographie Physique et Spatiale</i> Experimental project: Recreation of the thermohaline circulation effect in the lab.	2021, 3 mois
Physics, Chemistry and English Tutor	2018-2021