PENELOPE JONES

Gonville and Caius College, Trinity Street, Cambridge, CB2 1TA

RESEARCH FOCUS

- Machine learning for battery diagnostics and prognostics.
- Bayesian machine learning for deciphering structural and transport properties of electrolytes.

EDUCATION

Gonville and Caius College, University of Cambridge *2019 - Present*
Ph.D. Physics

Pembroke College, University of Cambridge *2015 - 2019*
M.Sci. Experimental and Theoretical Physics
B.A. Natural Sciences

Part III: Class I	77.6% (GPA: 4.0)
Part II: Class I	79.3% (GPA: 4.0)
Part IB: Class I	81.0% (GPA: 4.0)
Part IA: Class I	83.6% (GPA: 4.0)

ACADEMIC AWARDS

Alan Turing Institute Scholarship *2021 - Present*

Oppenheimer Scholarship and Winton Scholarship *2019 - Present*

Foundation Scholarship, Pembroke College *2017, 2018, 2019*
For performance in the Natural Sciences Tripos.

BP Prize *2016*
For outstanding performance in Part IA Chemistry (2nd out of 600 students).

Dr Stevens Prize *2016*
For performance in Part IA Natural Sciences (7th out of 600 students).

British Chemistry Olympiad *2015*
Top 50 in the UK.

British Physics Olympiad Experimental Prize *2014*
For producing the best A-level project in the UK.

PUBLICATIONS AND PRE-PRINTS

Inferring global dynamics from local structure in liquid electrolytes *2022*
P.K. Jones, K. Fong, K.A. Persson, A.A. Lee, arXiv:2208.03182

Impedance-based forecasting of lithium-ion battery performance amid uneven usage *2022*
P.K. Jones, U. Stimming, A.A. Lee, Nature Communications, 13, 4806

Bayesian unsupervised learning reveals hidden structure in concentrated electrolytes *2021*
P.K. Jones, F. Coupette, A. Härtel, A.A. Lee, Journal of Chemical Physics, 154, 134902

The photoswitch dataset: a molecular machine learning benchmark for the advancement of synthetic chemistry *2020*
A.R. Thawani, R-.R. Griffiths, A. Jamasb, A. Bourached, P.K. Jones, W. McCorkindale, A.A. Aldrick, A.A. Lee, arXiv:2008.03226

ICLR Workshop on Fundamental Science in the Era of AI *2020*