

---

# Single-shot statistical mechanics and its relation to fluctuation theorems

Oscar Dahlsten\*<sup>1</sup>

<sup>1</sup>Clarendon Laboratory, University of Oxford – United Kingdom

## Abstract

Single shot statistical mechanics concerns statements about behaviour that is guaranteed to be true (possibly up to some failure probability) in each single run of an experiment, e.g. what threshold is the work guaranteed to be above. It is closely connected to so-called single-shot information theory. I will describe certain key results, recent simplifications of their derivations, and explain the connection with Crooks fluctuation theorem.

---

\*Speaker