

1145-81-2024 **James D Whitfield*** (james.d.whitfield@dartmouth.edu), Dartmouth College, 6127 Wilder, Room 248, Hanover, NH 03755. *Quantum Measurement Problem*.

Measurement is at the heart of quantum mechanics and consequently also at the core of quantum simulation on quantum computers. This rapidly evolving field has recently produced a glut of publications with wide ranging claims from both academic and industrial groups. This makes the literature difficult to navigate and find common threads.

In this talk, I will use measurement to underline common themes and ground the literature in a common reality. We highlight the usefulness of phase estimation even for noisy intermediate quantum computers and clarify that variational quantum simulation methods are an extension of phase estimation rather than a replacement. (Received September 24, 2018)