## Abstract Submitted for the MAR08 Meeting of The American Physical Society

Quantum mechanics and the nature of the second law of ther-modynamics IAN T. DURHAM, Saint Anselm College — The second law of ther-modynamics is inherently a classical law, though quantum analogues have been suggested. What are these quantum analogues and what is their relation to the classical version of the second law? In particular, what can Bell's inequalities tell us about this relation? This continues ongoing work, some of which has been presented at previous APS meetings, and makes a stronger argument on the thermodynamic nature of Bell's inequalities.

Ian T. Durham Saint Anselm College

Date submitted: 27 Nov 2007 Electronic form version 1.4