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How to use 100,000 PCs for studying magnetism¹ GEORGE POWELL, LARRY ENGELHARDT, Francis Marion University, THOMAS HILBIG, CHRISTIAN SCHRODER, University of Applied Science, Bielefeld, Germany — “Public resource computing” refers to the use of volunteered processing time on (otherwise idle) computer processors at remote locations. We have recently incorporated the use of public resource computing into quantum mechanical calculations that are relevant to the study of magnetic molecules. Specifically, these calculations make use of a “quantum Monte Carlo” method, allowing the simulation of systems that are much more complex than those that can be studied using more conventional techniques. In this talk, we will introduce the basic principles of both the calculation method and the use of public resource computing.

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