

What will it take to open up the (life-science) application space for quantum computing?

Gemma C. Solomon

Nano-Science Center and Department of Chemistry, University of Copenhagen,
Denmark

NNF Quantum Computing Programme, Niels Bohr Institute, University of
Copenhagen, Denmark

Looking beyond the first applications of quantum computing that might emerge in chemistry and life-science, we can imagine a future where a broad range of applications and algorithms are in use. In this future, the field has broadened and significant numbers of domain experts without quantum training are active in defining the questions that are being investigated. In this talk, I will outline some of our initial ideas about what we can do now to remove barriers to entry and open up the field to newcomers. Specifically, we are working to (1) Reconsider the questions we ask, (2) Redefine what we consider “work”, (3) Communicate negative results, and (4) Reduce communication barriers.