Immediately available:
Postdoctoral position for an experimentalist in stochastic thermodynamics

I am looking for a highly motivated person with experimentalist skills to work in a postdoctoral position in my group in the Physics Department at Simon Fraser University.

My research group has projects probing the fundamentals of nonequilibrium statistical physics, thermodynamics, information theory, and control theory. For the past fifteen years, we have been pursuing research in stochastic thermodynamics. Much of it has been based on techniques using optical tweezers and feedback to create dynamic virtual potentials for colloidal particles. Expertise and experience in relevant techniques (optical tweezers and related technologies, real-time control using FPGA hardware, optical detection, etc.) will be an asset. Recent projects include explorations of optimal protocols for bit erasure and nonequilibrium generalizations of the Landauer bound, the realization of Maxwell demons in ordinary and nonequilibrium baths, and exploration of new techniques to make control techniques more robust. This position would include efforts to extend these projects and introduce new complementary ones.

Our group has a close working relation with the SFU theory group led by David Sivak, and there will be opportunities for collaborative interactions, as appropriate.

The endless all-season outdoors opportunities, wonderful food, and mild weather make Vancouver an enviable place to call home; slightly more objectively, it appears regularly on lists of the most livable cities in the world.

If you are interested, please send me an email (johnb AT sfu.ca) with
- cover letter explaining why the group interests you and why you would be a good fit;
- detailed CV, including publication list;
- contact information for two or three references;
- undergraduate and graduate transcripts (unofficial are fine).

Start date is flexible, with a preference for sooner. Applications will be accepted until the position is filled, but those submitted by **December 15, 2023,** will receive full consideration. The initial appointment is for one year; extension to two years or longer is possible, based on mutual agreement.

I am committed to ensuring that no individual is denied access to employment opportunities for reasons unrelated to ability or qualifications. Consistent with this principle, I will advance the interests of underrepresented members of the work force, specifically Indigenous peoples, persons with disabilities, visible minorities, and women; embrace gender and sexual diversity; ensure that equal opportunity is afforded to all who seek to join my group; and strive to ensure fair and equitable practices. Thus, candidates who belong to underrepresented groups in Physics are particularly welcome to apply.