

## LIST OF PUBLICATIONS

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SWATI SINGH

- 17) **S. Singh**, L.A. DeLorenzo, I. Pikovski, and K.C. Schwab, Detecting continuous gravitational waves with superfluid  $^4\text{He}$ , arXiv:1606.04980 [gr-qc] (2016). Accepted for publication in NJP.
- 16) Q. Song, **S. Singh**, K. Zhang, W. Zhang, and P. Meystre, *One qubit and one photon: The simplest polaritonic heat engine*, Phys. Rev. A **94**, 063852 (2016).
- 15) F. Bariani, H. Seok, **S. Singh**, M. Vengalattore, P. Meystre, *Atom-based coherent quantum-noise cancellation in optomechanics*, Phys. Rev. A **92**, 043817 (2015). **Editors' Suggestion**
- 14) **S. Singh**, Y. Chu, M. Lukin, and S. F. Yelin, *Coherent Population Trapping, Nuclear Spin Cooling, and Lévy Flights in Solid-State Atom-Like Systems*, Adv. Atom. Mol. Opt. Phys. **64**, 273 (2015).
- 13) F. Bariani\*, **S. Singh**\*, L.F. Buchmann, M. Vengalattore, P. Meystre, *Hybrid optomechanical cooling by atomic  $\Lambda$  systems*, Phys. Rev. A **90**, 033838 (2014). \*co-first author.
- 12) S. K. Steinke, **S. Singh**, P. Meystre, K. C. Schwab, and M. Vengalattore. *Quantum back-action in spinor condensate magnetometry*, Phys. Rev. A **88**, 063809 (2013).
- 11) H. Seok, L. F. Buchmann, **S. Singh**, and P. Meystre. *Optically mediated nonlinear quantum optomechanics*, Phys. Rev. A **86**, 063829 (2012).
- 10) E. M. Wright, M. Mazilu, **S. Singh**, K. Dholakia, and P. Meystre. *Theory and simulation of an Optical Spring Mirror*, Proc. SPIE **8458**, "Optical Trapping and Optical Micromanipulation IX", 84580A-1, doi 10.1117/12.929281 (2012).
- 9) **S. Singh**, H. Jing, E. M. Wright, and P. Meystre. *Quantum state transfer between a Bose-Einstein condensate and an optomechanical mirror*, Phys. Rev. A **86**, 021801(R) (2012).
- 8) H. Seok, L. F. Buchmann, **S. Singh**, S. K. Steinke, and P. Meystre. *Generation of mechanical squeezing via magnetic dipoles on cantilevers*, Phys. Rev. A **85**, 033822 (2012).
- 7) S. K. Steinke, **S. Singh**, M. E. Tasgin, P. Meystre, K. C. Schwab, and M. Vengalattore. *Quantum-measurement back-action from a Bose-Einstein condensate coupled to a mechanical oscillator*, Phys. Rev. A **84**, 023841 (2011).
- 6) **S. Singh**, G. A. Phelps, D. S. Goldbaum, E. M. Wright, and P. Meystre. *All-Optical Optomechanics: An Optical Spring Mirror*, Phys. Rev. Lett. **105**, 213602 (2010).
- 5) M. Bhattacharya, **S. Singh**, P. L. Giscard, and P. Meystre. *Optomechanical control of atoms and molecules*, Laser Physics **20**, 57 (2010).
- 4) **S. Singh**, and P. Meystre. *Atomic probe Wigner tomography of a nanomechanical system*, Phys. Rev. A **81**, 041804(R) (2010).
- 3) **S. Singh**, M. Bhattacharya, O. Dutta, and P. Meystre. *Coupling Nanomechanical Cantilevers to Dipolar Molecules*, Phys. Rev. Lett. **101**, 263603 (2008).  
Also in the January 2009 issue of Virtual Journal of Quantum Information and January 2009 issue of Virtual Journal of Nanoscale Science & Technology
- 2) Z. Li, **S. Singh**, T. V. Tscherbul, and K. W. Madison. *Feshbach resonances in ultracold  $^{85}\text{Rb}$ - $^{87}\text{Rb}$  and  $^6\text{Li}$ - $^{87}\text{Rb}$  mixtures*, Phys. Rev. A **78**, 022710 (2008). Also in the September 2008 issue of Virtual Journal of Quantum Information.
- 1) S. Aubin, M. Extavour, S. Myrskog, L. LeBlanc, J. Esteve, **S. Singh**, P. Scrutton, D. McKay, R. McKenzie, I. Leroux, A. Stummer, and J. H. Thywissen. *Trapping Fermionic  $^{40}\text{K}$  and Bosonic  $^{87}\text{Rb}$  on a Chip*, J. Low Temp. Phys. **140**, 377 (2005).