

Abstract Submitted
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Novel cooling mechanisms in optomechanical systems JUAN RESTREPO, IVAN FAVERO, CRISTIANO CIUTI, Laboratoire MPQ, Université Paris Diderot and CNRS, France — We present here our theoretical work on unconventional cooling mechanisms in optomechanical systems. In particular our classical and quantum theory of photothermal cooling [1] and our more recent work on cooling of a mechanical oscillator in cavity QED systems [2].

[1] J. Restrepo, J. Gabelli, C. Ciuti and I. Favero, *Comptes Rendus Physique*, 12, 860-870 (2011). doi:10.1016/j.crhy.2011.02.005 (arXiv:1011.3911)

[2] J. Restrepo, I. Favero, C. Ciuti. in preparation.

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