

## List of publications - Klaus Mølmer

### 1988-1990

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6. Y. Castin and K. Mølmer: *Atomic momentum diffusion in a  $\sigma_+$  -  $\sigma_-$  laser configuration: influence of an internal sublevel structure*. J. Phys. B. **23** (1990) 4101-4111.

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13. K. Berg-Sørensen, Y. Castin, E. Bonderup, and K. Mølmer: *Momentum diffusion of atoms moving in laser fields*. J. Phys. B. **25** (1992) 4195-4215.
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15. C. Gerz, T. W. Hodapp, K. M. Jones, W. D. Phillips, C. Westbrook, P. Jessen, and K. Mølmer: *The temperature of optical molasses for two different angular momenta*. Europhys. Lett. **21** (1993) 661-665.
16. G. S. Agarwal and K. Mølmer: *The correlation function approach to the momentum diffusion of atoms moving in standing waves*. Phys. Rev. A. **47** (1993) 5158-5164.
17. K. Berg-Sørensen, Y. Castin, K. Mølmer, and J. Dalibard: *Cooling and tunneling of atoms in a 2D laser field*. Europhys. Lett. **22** (1993) 663-668.
18. K. Mølmer and C. Westbrook: *Localization in semiclassical laser cooling*. Laser Physics **4** (1994) 872-883.
19. Y. Li and K. Mølmer: *Sisyphus laser cooling of trapped ions: the transition from optical molasses to the Lamb-Dicke regime*. Laser Physics **4** (1994) 829-834.

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81. Klaus Mølmer: *Jaynes-Cummings dynamics with a matter wave oscillator*. Phys. Rev. Lett. **90**, 110403 (2003); cond-mat/0211542
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164. Shengjun Wu, Uffe V. Poulsen, Klaus Mølmer, *Correlations in local measurements on a quantum state*; to appear in Phys. Rev. A.; arXiv:0905.2123.
165. Henriette Astrup Leth, Lars Bojer Madsen and Klaus Mølmer, *Monte Carlo wave packet theory of dissociative double ionization*; submitted for publication.
166. Christian Bergenfeldt, Klaus Mølmer, *Cooling a micro-mechanical resonator to its ground state by measurement back-action*; submitted for publication; arXiv:0906.1909
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### Invited publications, book chapters and reports:

1. E. Bonderup, P. Jessen, K. Mølmer, and O. Poulsen: *Laser cooling and fast ion beams*. GSI-report 89-10 (1989) 73-85.
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4. K. Berg-Sørensen, J. S. Hangst, M. Kristensen, K. Mølmer, J. S. Nielsen, J. P. Schiffer, P. Shi, and O. Poulsen: *Physics with stored lithium ions: intrabeam relaxation, laser cooling, and observation of a cold and long-lived ion beam*. Proceedings of the 19th INS symposium on Cooler Rings and their applications (1991), 80-89, eds. T. Katayama and A. Noda, World Scientific, Singapore 1991.
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11. K. Mølmer: *Kolde Atomer*. KVANT, udgivet af Dansk Fysisk Selskab, Nr 3, s. 1-12, 1997.
12. K. Mølmer and Y. Castin: *Monte-Carlo Wave-Function Treatment of 3D Laser Cooling of Atoms*. UNI-C Scientific Computing Report 1995-1997, p. 59-64 (1998).
13. K. Mølmer: *Classical Interference is a Quantum Effect*. DOPS-NYT **4**, 5-9, (1999).
14. Anders Sørensen and Klaus Mølmer: *Quantum computing and multi-particle entanglement in ion traps*. Invited paper for conference in Vienna 2000, submitted november 1999.
15. Klaus Mølmer and Anders Sørensen: *Multi-particle entanglement in quantum computers*. In *Macroscopic Quantum Coherence and Quantum Computing*, edited by D. V. Averin, B. Ruggiero, and P. Silvestrini, Kluwer/Plenum, New York (2001). Invited paper for conference in Napoli 2000.

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