

Spin Squeezing in Degenerate and Non-degenerate Atomic Vapors: Some Approaches to Atomic Entanglement

Nicholas P. Bigelow

Department of Physics and Astronomy, Institute of Optics, Laboratory for Laser Energetics, and
Center of Quantum Information, The University of Rochester, Rochester, NY 14627, USA

Reprint requests to Dr. N. P. B.; E-mail:nbig@lle.rochester.edu

Z. Naturforsch. **56 a**, 35–40 (2001); received February 20, 2001

*Presented at the 3rd Workshop on Mysteries, Puzzles and Paradoxes in Quantum Mechanics,
Gargnano, Italy, September 17 - 23, 2000.*

In this paper we discuss our recent work on the creation of spin-squeezed states in both thermal (room temperature) gasses and in spinor Bose-Einstein condensates.

Key words: Squeezing; Entanglement; BEC; Spin.