

**Title: Ground states of spinor Bose-Einstein condensates**

**by**

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Abstract: The remarkable experimental achievement of Bose-Einstein condensation (BEC) in 1995 has drawn significant research interests in understanding the ground states and dynamics of trapped cold atoms. Different from the single component BEC, spinor BEC possesses the spin degree of freedom and exhibits rich phenomenon. In the talk, we will introduce some mathematical results for ground states of spin-1,2 BECs, and a practical imaginary time propagation method for numerical