

# More accurate fraction in Bose Einstein condensate

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We consider an  $N$  bosonic atoms system trapped in an isotropic harmonic potential. We study systems in one, two and three dimensions. We determine a more precise expression of the particle number in the excited states. This expression leads to the occurrence of a Bose Einstein condensation for trapped atoms in all dimensions (even in one dimension where this condensation was not obtained by previous authors). This phase transition is less emphasized than this given in previous works.

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