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**Bose Condensation, Cooper Pairing and Superfluidity in Ultracold Atomic Gases:
Some basic questions**

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Abstract:

The attainment of Bose condensation and, more recently, Cooper pairing in ultracold atomic gases has forced us to re-examine various questions which were implicit in the older quantum-liquids literature but were not always fully appreciated. In this talk I concentrate on the basic definitions of condensation and superfluidity, and the extent to which rigorous limits can be set on their occurrence.