Erratum to: Overview on Solid ^4He and the Issue of Supersolidity

M.H.W. Chan · R.B. Hallock · L. Reatto

Published online: 18 September 2013
© Springer Science+Business Media New York 2013

Erratum to: J Low Temp Phys (2013) 172:317–363 DOI [10.1007/s10909-013-0882-x](https://doi.org/10.1007/s10909-013-0882-x)

In the original article, the text in Sect. 6.1.9 on page 350 has a misplaced reference in addition to a sentence missing. The two sentences “On the basis of many-body theory starting from localized orbitals for ^4He , Anderson has argued that necessarily the ground state of boson particles has defects. This work is summarized in a paper in these special issues [212]” should be replaced by the following:

“On the basis of many-body theory starting from localized orbitals for ^4He , Anderson has argued that necessarily the ground state of boson particles has defects [234, 296]. In a paper in these special issues [212], Anderson argues that, even in absence of defects, exchange processes of bosons in the solid are enough to establish a local phase so that the system has vortex-like excitations. From an analysis of the Boson Hubbard model, he argues [297, 212] that this system at the lowest temperatures is in a novel state of matter that has superflow, but not ODLRO, and he conjectures that a similar state is present in solid ^4He with vortex excitations essentially decoupled from phonons. This possibility warrants further deep theoretical investigations”.

The online version of the original article can be found under doi:[10.1007/s10909-013-0882-x](https://doi.org/10.1007/s10909-013-0882-x).

M.H.W. Chan

Dept. of Physics, Penn State University, University Park, PA, USA

R.B. Hallock (✉)

Laboratory for Low Temperature Physics, Dept. of Physics, Univ. of Mass. Amherst, Amherst, MA, USA

e-mail: hallock@physics.umass.edu

L. Reatto

Dipartimento di Fisica, Università degli Studi di Milano, via Celoria 16, 20133 Milan, Italy

Additional References:

- 296. P.W. Anderson, [arXiv:cond-mat/0504731](#) (2005)
- 297. P.W. Anderson, [arXiv:1102.4797](#) [cond-mat] (2011)