Erratum: Dislocation Structure and Mobility in hcp ^4He [Phys. Rev. Lett. 117, 045301 (2016)]

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We would like to offer a clarification and correction to our Letter.

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(1) To clarify the terminology adopted in our Letter, we define basal-plane dislocations as those that have *both* line direction *and* their Burgers vector contained in the basal plane. This definition is consistent with the fact that it is this set of dislocations that mediates basal slip, the dominant mechanism for plastic deformation in hcp ^4He . Our results imply that this class of dislocations, also responsible for the observed giant plasticity in hcp ^4He , do not have superfluid cores and thus are not expected to be involved in the detected mass-flow phenomena. However, these findings do not preclude other, nonbasal-plane dislocations, such as those discussed in Refs. [14] and [15], from having a superfluid core.

(2) The statement in the second paragraph that “fully atomistic studies have remained limited to dislocations with Burgers vectors aligned with the c axis” is incorrect. We missed the fact that Refs. [14], [29], and [30] also discuss dislocations with Burgers vectors in the basal plane. Nevertheless, the dislocations studied in Refs. [14] and [29] are not basal-plane dislocations according to our definition and are different from those that we address in our Letter. Reference [30], on the other hand, did in fact cite unpublished results concerning the same basal-plane edge dislocation studied in our Letter, mentioning its dissociation into nonsuperfluid partial dislocations.

We note that these issues do not alter the conclusions of the Letter.

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