

**Gabrielli, Jona-Lasinio, and Landim Reply:** The Comment by Lebowitz and Spohn [1] raises the important question whether our results can be generalized to other systems. They emphasize that the class of models we consider is rather special due to a symmetry property of the dynamics (they call it mirror-type) and this circumstance, in their view, “casts doubt about the extension of the result to more general systems.” Their argument is based on the structure of the hydrodynamic equations imposed by the symmetry. While we find their reasoning very elegant and stimulating, we remark that it does not forbid extensions of our result. In fact, when going from the microscopic level to hydrodynamics, information is lost so that the macroscopic equations can be symmetric even if the microscopic process is not. In the case of the models we consider, it is possible to see that, even when the microscopic dynamics is not symmetric and is characterized by different transition probabilities  $p_i(x)$  for the different types of particles, if their second moments  $\sigma_i^2 = \sum_x x^2 p_i(x)$  are equal the hydrodynamic equations remain the same. Actually, conditions can be given on the microscopic generator that guarantee the validity of

our result for a wide class of nonsymmetric (in the sense of Lebowitz and Spohn) models. These results will be discussed in a forthcoming paper.

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[1] J.L. Lebowitz and H. Spohn, preceding Comment, Phys.  
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