

## LOCAL MAXWELLIAN DISTRIBUTION IN FLUIDS

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### S u m m a r y

The spatial and temporal intervals playing the role of hydrodynamic scales for fluids have been analyzed. Those intervals are identified with the dimensions of a region, in which the local Maxwellian distribution is established, and a time interval, for which this distribution is established. The Maxwellian distribution is shown to arise in fluids owing to the interaction between the localized thermal vibrations of fluid particles. For the spatial and temporal hydrodynamic scales, the estimates of 100 nm and  $10^{-10}$  s, respectively, are obtained.