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Parallel Performance for a Real Time Lattice Boltzmann Code

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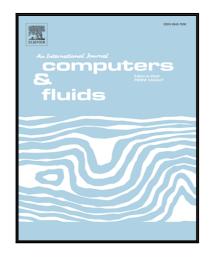
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Highlights

- Careful implementation of the LMB can lead to substantial changes in the required CPU time.
- More than 10 times faster execution was finally obtained.
- Using parallel implementation real-time execution of the LBM is possible using relatively small number of cores.
- The use of KNL opens the gate for linking high performance clusters with real-time wakes in flight simulators.

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