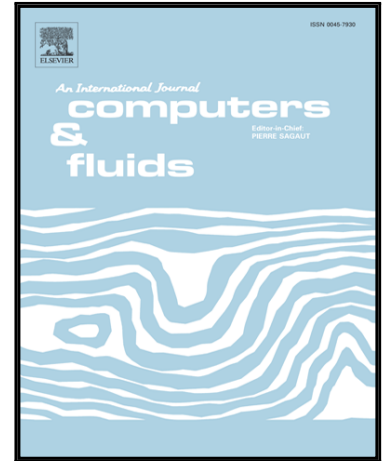


## Accepted Manuscript

Improving the stability of multiple-relaxation lattice Boltzmann methods with central moments

M. Chávez-Modena, E. Ferrer, G. Rubio

PII: S0045-7930(18)30188-9  
DOI: [10.1016/j.compfluid.2018.03.084](https://doi.org/10.1016/j.compfluid.2018.03.084)  
Reference: CAF 3845



To appear in: *Computers and Fluids*

Received date: 31 October 2017  
Revised date: 5 March 2018  
Accepted date: 30 March 2018

Please cite this article as: M. Chávez-Modena, E. Ferrer, G. Rubio, Improving the stability of multiple-relaxation lattice Boltzmann methods with central moments, *Computers and Fluids* (2018), doi: [10.1016/j.compfluid.2018.03.084](https://doi.org/10.1016/j.compfluid.2018.03.084)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

**Highlights**

- Von Neumann stability analysis is performed for BGK and MRT (raw and central moments)
- An optimization of free parameters for the MRT-CM is presented
- The optimization increases dissipation only for high under-resolved wavenumbers
- The new optimized MRT-CM shows improved stability whilst maintaining accuracy

ACCEPTED MANUSCRIPT

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات