

Accepted Manuscript

Discontinuous Galerkin algorithms for fully kinetic plasmas

J. Juno, A. Hakim, J. TenBarge, E. Shi, W. Dorland

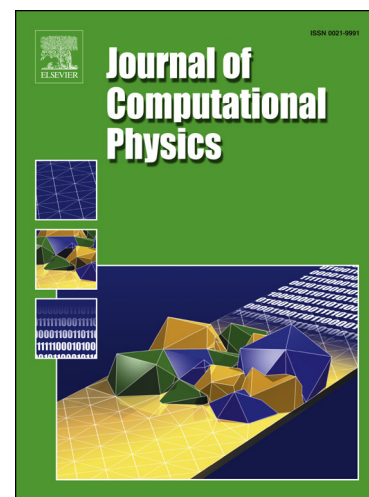
PII: S0021-9991(17)30747-7
DOI: <https://doi.org/10.1016/j.jcp.2017.10.009>
Reference: YJCPH 7647

To appear in: *Journal of Computational Physics*

Received date: 19 June 2017
Revised date: 3 October 2017
Accepted date: 6 October 2017

Please cite this article in press as: J. Juno et al., Discontinuous Galerkin algorithms for fully kinetic plasmas, *J. Comput. Phys.* (2017), <https://doi.org/10.1016/j.jcp.2017.10.009>

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

- The discretization of the Vlasov-Maxwell system is high order accurate.
- The spatial discretization conserves energy exactly.
- The algorithm scales well on distributed memory clusters.
- The algorithm permits noise free calculations of the distribution function.
- The algorithm has been tested on a five dimensional turbulence calculation.

Download English Version:

<https://daneshyari.com/en/article/6929306>

Download Persian Version:

<https://daneshyari.com/article/6929306>

[Daneshyari.com](https://daneshyari.com)