Accepted Manuscript

Effects of particle polydispersity on radiative heat transfer in particle-laden turbulent flows

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 PII:
 S0301-9322(17)30772-3

 DOI:
 10.1016/j.ijmultiphaseflow.2018.03.011

 Reference:
 IJMF 2766

To appear in: International Journal of Multiphase Flow

Received date:7 October 2017Revised date:17 January 2018Accepted date:6 March 2018

Please cite this article as: M. Rahmani, G. Geraci, G. Iaccarino, A. Mani, Effects of particle polydispersity on radiative heat transfer in particle-laden turbulent flows, *International Journal of Multiphase Flow* (2018), doi: 10.1016/j.ijmultiphaseflow.2018.03.011

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Highlights

- The effects of polydispersity and particle clustering on the effective heat transfer between a gas phase and a solid particle phase are investigated.
- The DNS results for the heat transfer from solid particles to gas is compared to the predictions of a semi-analytical one-dimensional model.
- Closure corrections for the effective heat transfer are examined for monodisperse and polydisperse particle settings.

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