



**The Combustion Institute**

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## **Post-doctoral Researcher on Turbulent Combustion Modeling**

The Computational Energy and Propulsion Lab (CEPL) in the School of Aeronautics and Astronautics at Purdue University invites application for a post-doctoral researcher to conduct research in the area of turbulent combustion modeling. The main responsibility is to improve an in-house turbulent combustion modeling code and to perform high-fidelity parallel simulations of a laboratory-scale combustion rig. Reduced-order combustion models will then be constructed by using the obtained high-fidelity simulation data that can be used for combustion engine design and optimization. The position is available for one year, with a possibility for renewal up to two additional years contingent upon satisfactory performance and funding. The anticipated starting date is January 2020.

### **Essential Requirements**

Individuals with expertise in turbulent combustion modeling and a Ph.D. in relevant fields (including but not limited to mechanical engineering, chemical engineering, and aerospace engineering) are encouraged to apply. All candidates must have strong, demonstrated research capability, be a good team player, excellent English written and spoken communication skills, and a Ph.D. in a relevant field, completed within the last three years or soon to be completed.

Highly qualified candidates are sought with the following qualities and expertise:

- Expertise in CFD simulations for turbulence with RANS and/or LES;
- Expertise in turbulent combustion models (e.g., transported PDF method, flamelet models);
- Experience in high-performance computing and data analysis;
- Knowledge in chemical kinetics and fundamentals of turbulence and combustion; and
- Advanced computer programming skills in FORTRAN and/or C/C++ and MPI parallelization.

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## How to Apply

To apply, please email your detailed CV along with the contact of three references in a single PDF file to [haifeng@purdue.edu](mailto:haifeng@purdue.edu).

The subject line of your email should read like this: PURDUE POSTDOC APPLICATION: [Last Name], [First Name] with [Last Name] and [First Name] replaced by your name.

### **Questions:**

Questions regarding the position should be directed to:

Prof. Haifeng Wang  
ARMS 3313  
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Purdue University  
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### **Link to the Purdue University online job posting -**

[https://engineering.purdue.edu/CEPL/Opening/POSTDOC\\_POSITION\\_2019.html](https://engineering.purdue.edu/CEPL/Opening/POSTDOC_POSITION_2019.html)

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