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**Abstract.** The use of a thermal non-equilibrium Eulerian-Eulerian model for the simulation of a 620 MWe power boiler is proposed for capturing the combustion and radiative heat transfer found in the pulverized fuel systems. The models eliminates the use of a Lagrangian reference frame in tracking solid fuel particles thereby reducing the computational expense and time. The model solves the scalar transport for the particle mass, energy and radiation interactions between the pseudo-particle and continuous phases.

The model is validated against both numerical and applicable site data measurements. It is shown that the model is able to adequately resolve the furnace and super-heater wall heat fluxes. Additionally the models ability to resolve the flow field, combustion dynamics and wall fluxes is demonstrated for 80 and 60

## 1 Introduction

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## 2 Section title

For bibliography use [1]

### 2.1 Subsection title

Don't forget to give each section, subsection, subsubsection, and paragraph a unique label (see Sect. 2).

For figures use syntax of figure 1

For tables use syntax in table 1.

## References

- [1] Journal Author, Journal **Volume**, page numbers (year)
- [2] Book Author, *Book title* (Publisher, place, year) page numbers

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**Figure 1.** Please write your figure caption here

**Table 1.** Please write your table caption here

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