SHANGHAI JIAO TONG UNIVERSITY, UM-SJTU JOINT INSTITUTE

Technical Communication
HW6

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1 SLIDES IN LATEX

Please refer to "../ex1/slide.pdf" and "../ex1/slide.tex".

2 WRITTING

FIRST VERSION

Turbulence combustion consists of complex flow and combustion phenomenon. Based on the model of flamelet, progress variable-flamelet model was developed for simulation of turbulence combustion. The progress variable was introduced to describe the complicated combustion phenomenon, such as local extinction and re-ignition. In my project, In order to exam the LES based on progress variable-flamelet model, I have been trying to apply this model to the simulation of diffusion jet flame, especially investigating the accuracy and availability of this model under the conditions of different Reynolds number, inflow profiles, and ignition approaches.

MODIFIED VERSION

The research focuses on developing the progress variable flamelet model for simulating the turbulence combustion. There are some common phenomenon in turbulence combustion, e.g. local extinction and re-ignition, bringing great trouble to the simulation. And progress variable is very suitable to describe them. Large-eddy simulation(LES) is one of the most popular simulation methods in combustion field, and it is combined with variable-flamelet

model for the simulation of diffusion jet flame in his project. The details include investigating the performance of this method under different combustion conditions.

FINAL VERSION

Focusing on developing the progress variable flamelet model for the simulation of turbulent combustion, the research is combining Large-eddy simulation(LES) with variable flamelet model, for diffusion jet flame simulation. Some complicated phenomenon in turbulence combustion, e.g. local extinction and re-ignition, bring great trouble to the simulation. And progress variable is developed to describe them. On the other hand, Large-eddy simulation is one of the most popular simulation methods in combustion field. To exam the availability of this combined model, a lot of numerical experiments under different conditions are proposed.

3 GROUP EXERCISE

Please refer to Xuqing Zhou's submission, whose student ID is 118370910023.

4 LEONARDO DA VINCI

This letter is excellent in terms of both contents and expressing skills. Generally, it is full of passion and confidence, which helps to make a positive atmosphere.
Introductions are split into 10 parts, with each focusing on a specific topic. This makes the general structure looks much clear.
In each part, active verbs and simple tense are used in the beginning to make it reads more powerful and reliable. Then, effects are vividly described. This is exactly the selling strategy "Sell the hole" does.
Besides, rhetoric words are used properly, which make it looks polite and suitable. All aspects like target readers, contends, time and conditions are well considered. I think it's a good job.

5 IDEA SURVEY