LES Modeling Within a Stabilized Finite Element Method

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The variational multiscale model [1] has afforded a new perspective on LES modeling in much the same way as the dynamic model did so in the early 90's. In this talk we will summarize our experiences with these two models [2-5] and describe efforts to combine the two. These efforts are carried out in the context of a stabilized finite element method [6-7] which itself provides a certain "model" that we are beginning to better quantify and compensate for [4]. We will present our latest work in all of these areas including applications to flows where it is most easy to isolate the various modeling effects.

References

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