

RESEARCH PAPERS

气泡-液体闭式射流的大涡与二阶矩模拟

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摘要 The Large-eddy simulation (LES) with two-way coupling is used to study bubble-liquid two-phase confined multiple jets discharged into a 2D channel. The LES results reveal the large-eddy vortex structures of both liquid flow and bubble motion, the shear-generated and bubble-induced liquid turbulence, and indicate much stronger bubble fluctuation than that of the liquid, the enhancement of liquid turbulence by bubbles. Both shear and bubble-liquid interaction are important for the liquid turbulence generation in the case studied.

关键词 [large-eddy simulation](#) [bubble-liquid flow](#) [two-phase jet](#)

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Large-eddy Simulation of Bubble-Liquid Confined Jets

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Abstract The Large-eddy simulation (LES) with two-way coupling is used to study bubble-liquid two-phase confined multiple jets discharged into a 2D channel. The LES results reveal the large-eddy vortex structures of both liquid flow and bubble motion, the shear-generated and bubble-induced liquid turbulence, and indicate much stronger bubble fluctuation than that of the liquid, the enhancement of liquid turbulence by bubbles. Both shear and bubble-liquid interaction are important for the liquid turbulence generation in the case studied.

Key words [large-eddy simulation](#); [bubble-liquid flow](#); [two-phase jet](#)

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