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THERMAL-FLUID TOPOLOGY OPTIMIZATION WITH UNCONDITIONAL ENERGY STABILITY AND SECOND-ORDER ACCURACY VIA PHASE-FIELD MODEL

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标题: Thermal-fluid topology optimization with unconditional energy stability and second-order accuracy via phase-field model

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摘要: This paper aims to establish a novel and efficient topology optimization method for the thermal-fluid. To adaptively design the fluid-solid coupling structure and make the objective energy to dissipate, the proposed method considers several constraints, such as the volume conservation, inlet and outlet flow velocity field and fluid-solid boundary constraints.

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