**COBRA-TF Residual Formulation Solid Liquid Coupling**

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**Abstract**

**Keywords:** thermal hydraulic, residual, jacobian, solid liquid coupling

A descriptive abstract should be placed here. Information should be provided on the research motivation, background, objective, technical approach, and outcomes. Please do not include figures and tables in the abstract. The abstract should be about 250 to 400 words. Limit the abstract to one page only.

**Keywords:** Four to five keywords here (For example: Flow regime transition, two-fluid model, turbulence, void fraction)