

COMPUTATIONAL MODELLING OF FLOW AND HEAT TRANSFER IN MICROCHANNELS

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PROPOSAL

Numerical modelling of flow, heat and mass transfer at microscales is proposed. A mini-symposium in this area is timely due the fact that miniaturization of heat transfer equipments is a very active application area. The applications of such problems include electronic cooling, lab-on-chip devices, bio-fluidics, biomedical applications, etc. Fundamental understanding of fluid flow and heat transfer in microscale systems is a major area of research. Debate on when the continuum model breaks down is an on going one. Boundary conditions is another important issue. Electrokinetic effects can only be realized at microscales. Modelling electrokinetically driven flows and heat transfer is another major area of research. We believe that a focused mini-symposium to discuss the issues related to microscale fluid flow and heat transfer may increase the understanding in this area. We invite potential authors to submit their papers on any area of microscale fluid flow, heat and mass transfer.

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