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**Thermal convection in multiphase systems** LUCA BIFERALE, University of Rome “Tor Vergata”, PRASAD PERLEKAR, TUE, Eindhoven, MAURO SBRAGAGLIA, ANDREA SCAGLIARINI, University of Rome “Tor Vergata”, FEDERICO TOSCHI, TUE, Eindhoven, ICTR COLLABORATION — We present preliminary results of a numerical study of two dimensional and three dimensional multiphase thermal convection close to the phase transition and in presence of phase coexistence. The numerical algorithm is based on a suitable implementation of multiphase Lattice Boltzmann scheme with non-ideal pressure tensor. We discuss the effects of droplets and bubbles formation on the global heat flux from bottom to top boundaries.

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