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Collective motion of multiple rafts on the Rayleigh-Benard convection FAHRUDIN NUGROHO, DEWI LITA MARTANTI, RYAN PRATAMA, AGUNG BAMBANG S.U., PEKIK NURWANTORO, Department of Physics, Gadjah Mada University, Yogyakarta, Indonesia, DIAN ARTHA K, Faculty of Teaching and Educational Technology, Ahmad Dahlan University, Yogyakarta, Indonesia — We observe the dynamics of rafts on the Rayleigh-Benard convection. A single raft motion shows at least three types of motions i.e. the linear, oscillatory, and random motions. The velocity of single raft fits with the gaussian distribution function. While the multiple rafts case show more complex motion, including the possibility of collective motion. We show that there is an indication of collective motion of multiple rafts as one of the law of motion in the Rayleigh-Benard convection.

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