CORRELATION PROPERTIES OF SPATIALLY INHOMOGENEOUS SYSTEMS UNDER GRAVITY CLOSE TO THE SUSCEPTIBILITY EXTREMUM LINE

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S u m m a r y

Behaviour of the correlation properties for inhomogeneous liquid is investigated by the high-altitude and temperature dependences of the light scattering intensity under gravity near the critical point. On the basis of these data, the surfaces of the field and temperature dependences of the correlation length $R_c(h, t)$ and the fluctuation part of free energy $F^*(h, t) = C_0 R_c^{-3}(h, t)$ are constructed. The results obtained are used for analysis of the correlation and thermodynamic properties for inhomogeneous systems under gravity near the susceptibility extremum line. Conclusions are made about the probability of creation of fluctuations along this line.