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Persistence in Conserved Order Parameter Coarsening PHILIP MARQUIS, BENJAMIN VOLLMAYR-LEE, Bucknell University — Persistence in conserved order parameter coarsening is studied via computer simulation of the Cahn-Hilliard equation. Persistence $P(t_1, t_2)$ is defined as the fraction of the system that has not been traversed by a domain wall between times t_1 and t_2. We measure persistence as a function of volume fraction and establish that it decays according to a power law $P \sim t_2^{-\theta}$ for all volume fractions studied. We find that the persistence exponent θ depends on the volume fraction. Our results are then compared with an exact calculation applicable in the dilute limit.

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