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Quantum Quench of a P-wave Fermi Gas SUKJIN YOON, APCTP, GENTARO WATANABE, APCTP; POSTECH; RIKEN — We investigate the non-equilibrium dynamics following a quantum quench in a single-species superfluid Fermi gas at zero temperature. This p-wave Fermi gas is known to undergo a quantum phase transition when the inter-particle interaction is changed from the BCS to BEC regime, which is distinct from a crossover in the s-wave case. The quench dynamics of polar states of the p-wave superfluid Fermi gas is studied within a mean field approach. The time evolutions of the order parameter and the momentum occupation are obtained and compared with the s-wave case.

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