

Abstract Submitted
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Dynamic coexistence of competing orders in multi-component superconductors MAXIM DZERO, Kent State University, ALEX LEVCHENKO, Michigan State University — We study the nonequilibrium dynamics of an electronic model with competing spin-density wave and unconventional superconductivity in the context of iron-pnictides. Focusing on the collisionless regime we find that magnetic and superconducting order parameters may coexist dynamically after the quench even though the equilibrium state has only one order parameter. We consider different initial conditions concomitant with the phase diagram and in a certain regime identify new oscillatory amplitude modes with incommensurate frequencies for magnetic and superconducting responses. At the technical level we solve equations of motion for the electronic Green's functions and self-consistency conditions by reducing the problem to a closed set of Bloch equations in the pseudospin representation.

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