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SU(4) Polyakov linear-sigma model in finite density and magnetic field (15' + 5')

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In analyzing the chiral phase-structure, we utilize mean field approximation for the SU(4) Polyakov linear sigma model (PLSM), in which light, strange and charm quarks are combined. The different chiral condensates and the deconfinement order parameters shall be studied in dependence on temperature, chemical potential and magnetic field. This enables us to investigate the QCD equation of state, and the in-medium modification of open and hidden strange-charm mesons. The results are compared with available lattice simulations and experimental measurements.

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