Stars in LMC Clusters: Spectroscopy Confronts Theory

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The extended main-sequence turn-off found in LMC clusters is not understood. It is not clear if rotation completely accounts for this phenomenon, or if a spread in stellar ages is required as suggested by Milky Way clusters. New high resolution spectroscopy of stars in several young LMC globular clusters (NGC 1866, 1755, 1971, spanning 70 Myr - 250 Myr) can provide constraints to theoretical scenarios including documentation of H-alpha emission from excretion disks (the Be phenomenon), H-alpha absorption, rotation velocities of individual stars, and the presence of stellar winds.