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Type: **Talk**

MOCCA: Dynamical blue stragglers excess after core collapse

Thursday, 22 August 2024 10:00 (20 minutes)

In the talk I would like to show the results of MOCCA simulations of globular star clusters, which show clear signs of excess of number of blue stragglers stars (BSSs) due to core collapse. The excess of BSSs happens for the core collapses happening for different times (starting from 1-2 Gyr, and up to Hubble time) and for star clusters with different parameters. This feature seems to be common for various models, however it is more profound for core collapses taking place in the lower times.

During the talk I would like to show also that the excess of the number of BSSs is due to the excess of the dynamical ones. In turn, the evolutionary BSSs (not changed by the dynamical interactions) are basically not affected by the core collapse. Moreover, in the talk I would like to show some general conclusions how this excess of BSSs corresponds to global star cluster properties like half-mass relaxation times, total masses or half-mass radii.

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