

## The 100 brightest Blue Straggler Stars.

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### Abstract

Blue straggler stars (BSS) are characterized by their appearance in the CMD of globular and open clusters, in the Main Sequence extension, above the turn-off and blueward of this. In accordance with the Standard Theory of stellar evolution, BSS should be out of the Main Sequence and over the Giant Branch if they really belong to the cluster and are formed at the same time than the rest of cluster stars. There are several theories that try to explain the existence of BSS but at present prevails the idea that they can be the product of mass transfer in binaries (McCrea, 1964), and the luminosity of the receiver star is incremented in such a way that now it is over the Main Sequence turn-off point of its cluster. Also it is believed that they are the result of stellar fusion of two or several stars, specially in dense systems as the globular cluster nucleus. This work is focalised in all the BSS brihgter the  $V = 10$  mag. that we have been able to identify in open clusters. It is a sample unprecedented by its number and as well it is a sample with plentiful observational information, it is why we hope to be able to assure their membership to the parent cluster and obtain reliable information about their possible origin.