Comparative Study of Low-Temperature Stellar Opacities for different solar mixtures

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Abstract

In this poster, we conduct a comparative study of the impact of low-temperature opacities in stellar models using two widely used opacity calculations, Ferguson and AESOPUS considering three different initial chemical compositions: GS98, AGSS09, and MB22. First, we overview the intrinsic differences between the opacity calculations. Then, using GARSTEC, we analyze the differences in the evolutionary tracks of stellar models relevant to the PLATO core program, from the main sequence to the RGB.

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