

Nonlinear Extinction Behavior in the Color-Magnitude Diagrams of SDSS Filters

Sungsoo S. Kim and Sae-Poom Yoon

Kyung Hee University, Dept. of Astronomy and Space Science

We calculate theoretical isochrones of Sloan Digital Sky Survey (SDSS) $u'g'r'i'z$ filters for various stellar ages and masses, and analyze their extinction behavior in the color-magnitude (C-M) diagram. The non-zero width of the filters makes the reddening vector in the CM diagram considerably nonlinear. We discuss its implications.