

A SYNOPTIC VIEW OF THE MAGELLANIC CLOUDS:
VMC, GAIA AND BEYOND

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**The intrinsic reddening of the SMC
as traced by background galaxies**

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We present a method to map the total intrinsic reddening of the Small Magellanic Cloud (SMC) via the analysis of spectral energy distributions (SEDs) of background galaxies covering the wavelength range 0.3-2.5 micron. Using the LePhare χ^2 minimisation SED-fitting routine and various samples of galaxies and/or quasi-stellar objects, we find that, only when we create reddening maps using objects with low levels of intrinsic reddening, the resulting maps are consistent with previous literature determinations i.e. regions such as the Bar and Wing show elevated levels of reddening compared to other regions in the SMC. We have tested the dependency on the adopted templates and find that theoretical templates imply significantly higher levels of reddening by up to 0.15 mag in E(B-V). A comparison with existing literature reddening maps – based on the stellar components of the SMC – shows a reasonable level of agreement, however significant discrepancies are also observed which could highlight appreciable levels of dust not accounted for in the stellar reddening maps and are likely attributable to the different tracers sampling different lengths along the line-of-sight dust column.