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SMC-Last Point Source Catalog: Spitzer's Last Survey of the Small Magellanic Cloud

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Published on: Jan 31, 2023 URL: <u>https://baas.aas.org/pub/2023n2i362p09</u> License: <u>Creative Commons Attribution 4.0 International License (CC-BY 4.0)</u> We present a processing for the point source catalog derived from Spitzer's final two surveys of the Small Magellanic Cloud (SMC). These 2017-2018 maps duplicate the footprint from the SAGE-SMC program from 2008 and were obtained at 3.6 and 4.5 µm with the Infrared Array Camera (IRAC). They provide a nearly 10-year baseline of all observations of the SMC made by Spitzer. We extracted point sources from both the basic calibrated data (BCD) as well as the final processed mosaics. We did not use any prior catalogs as inputs in order to search for moving objects (e.g., foreground brown dwarfs) and other transient phenomena. The extractions from two test fields are shown here: a field sparsely populated with stars and a second containing more complicated structures. Comparing our extractions between both of our epochs and with the SAGE epochs shows the completeness and range of our survey. The mosaics are currently available on the Infrared Science Archive (IRSA) and the Harvard Dataverse. The final point source catalog will be available at both archives, as well. This work is supported by NASA Award 80NSSC19K0585.