

Archive of Nearby Galaxies: Reduce, Reuse, Recycle (ANGRRR)

Principal Investigator: Dr. Julianne Dalcanton

Institution: University of Washington

Electronic Mail: jd@astro.washington.edu

Scientific Category: RESOLVED STELLAR POPULATIONS

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Total Budget Amount: \$381,478 (Budget to be split over two years)

Legacy: Yes

Abstract

We propose to reduce the entire ACS and WFPC2 imaging archive for all 202 non-Local Group galaxies within 5 Mpc. We will produce calibrated, time-stamped photometry for the millions of stars resolved in the reduced images. The resulting catalogs can be used for studies of variable stars, recent star formation, metallicity and spatial distributions of old stellar populations, galaxy distances, stellar clusters, and optical counterparts of X-ray sources. As part of this Legacy program, we will release: (1) all reduced imaging; (2) catalogs of stellar photometry; (3) a pipeline for measuring fluxes of sources detected with multiple cameras with varying imaging conditions; (4) calibrated color-dependent filter transformations among all possible HST filter + instrument combinations; and (5) revised stellar isochrones in both WFPC2 and ACS systems.

Investigators:

	Investigator	Institution	Country
PI	Dr. Julianne Dalcanton	University of Washington	USA/WA
CoI	Mr. Anil C. Seth	University of Washington	USA/WA
CoI	Dr. Andy Becker	University of Washington	USA/WA
CoI	Dr. Andrew Dolphin	University of Arizona	USA/AZ
CoI	Dr. Kenneth C. Freeman	Australian National University	Australia
CoI*	Dr. Carme Gallart	Instituto de Astrofisica de Canarias	Spain
CoI*	Dr. Leo Girardi	Osservatorio Astronomico di Padova	Italy
CoI	Dr. Fabio Governato	University of Washington	USA/WA
CoI	Dr. Jason Harris	University of Arizona	USA/AZ
CoI	Dr. Paul W. Hodge	University of Washington	USA/WA
CoI	Dr. Jon A. Holtzman	New Mexico State University	USA/NM
CoI	Dr. Zejlko Ivezić	University of Washington	USA/WA
CoI*	Prof. Igor D. Karachentsev	Russian Academy of Sciences, Special Astrophysical Obs.	Russia
CoI	Dr. Valentina Karachentseva	Kyiv University	Ukraine
CoI	Dr. Mario L. Mateo	University of Michigan	USA/MI
CoI	Dr. Knut A.G. Olsen	National Optical Astronomy Observatories - CTIO	Chile
CoI	Prof. Thomas Quinn	University of Washington	USA/WA
CoI	Dr. Evan D. Skillman	University of Minnesota - Twin Cities	USA/MN
CoI	Dr. Peter B. Stetson	Dominion Astrophysical Observatory	Canada
CoI	Dr. Dennis Zaritsky	University of Arizona	USA/AZ

Number of investigators: 20

* ESA investigators: 3