

# Resume

## Ray A. Lucas

### Current Employer:

Association of Universities for Research in Astronomy (AURA)  
Space Telescope Science Institute  
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### Research Interests in Astronomy:

Interacting and merging galaxies, galaxy evolution, galaxy clusters, galaxy pairs and groups, luminous and ultraluminous infrared galaxies, galaxy morphologies, extragalactic deep surveys, radio galaxies, quasars and active galactic nuclei (AGN), extragalactic star clusters and globular clusters, virtual observatories, CCD optical and other infrared detectors.

### Experience (Astronomy) and skills:

- STScI (1985-present): Guide Star Selection System Operations (CSC) from July 1985 – March 1989. GSC catalog construction, digitizing astronomical survey plates, image processing, object classification, and photometric and astrometric calibration, creating GSC-I and all-sky digital image archive. Began involvement in research on interacting and merging galaxies; Technical Assistant/Program Coordinator March 1989 – October 2004 in User Support Branch/PC Team (PRESTO)/Observation Preparation Branch. Assisted TAC peer review committees, supported observing program development, implementation (in HST ground system and flight database) of observing programs, serving as primary observer contact at STScI. Continued research as CoI on many HST programs, including SM1-ERO on CL0939+4713, HDF-N, HDF-S, GOODS, HUDF. Worked on JWST DRM proposals, testing resource and feasibility issues. Sr. Data Analyst/Sr. RIA in ACS group, October 2004 – present. Automated creation of ACS superbias and superdarks, QA, ACS pipeline processing issues, etc. NVO research. SM4 EVA Support and SM4 data analysis for ACS-R. Managed AWT Help Desk and staff. Extensive calibration work on extended source CTE in astronomical CCDs. Skills: primarily IRAF/STSDAS scripts and data analysis, unix, Mac OSX, Windows, use of HST implementation and planning and scheduling tools, Archive and NVO tools, & other similar computer skills. Please see CV for more detailed summary of experience and background, etc.

### Education:

- BA Zoo/Psych UNC-Chapel Hill (1976) + interinstitutional student at Duke University; extra upper-level and graduate coursework in astronomy and astrophysics at UNC and Johns Hopkins University.