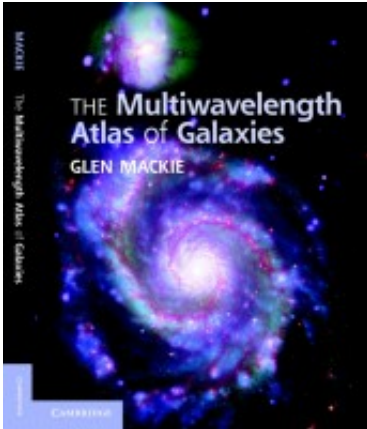


A visual feast of galaxies

February 14 2011



Messier 51, NGC5194 the Whirlpool galaxy in X-rays (purple), Ultraviolet (blue), Optical (green) and Infrared (red). Companion galaxy NGC5195 is also shown to the north. Credit: X-ray: NASA/CXC/Wesleyan U./R. Kilgard et al.; UV: NASA/JPL-Caltech; Optical: NASA/ESA/S. Beckwith, Hubble Heritage Team (STScI/AURA); IR: NASA/JPL-Caltech/ U. of Az./R. Kennicutt.

A unique new atlas of 35 galaxies has been compiled by Swinburne astronomer Dr. Glen Mackie.

The Multiwavelength [Atlas](#) of [Galaxies](#) contains more than 250 colour images contributed by Mackie and more than 100 astronomy colleagues.

"The atlas shows the huge variety of galactic structures when observing the entire electromagnetic spectrum, not just the optical region," Mackie said.

"Historically we've tended to look at galaxies mainly at [optical wavelengths](#), but that is really only about 10 per cent of the full story. Looking across the full spectrum you see what's going on not only with stars, but with gas, dust, even electrons."

The atlas explains why we see the component stars, gas and dust through different radiation processes.

The telescopes, instruments and detectors used to collect the images include the [Hubble Space Telescope](#), the Chandra X-ray Observatory, the [Spitzer Space Telescope](#) and the Parkes 64m dish.

The atlas includes appendices describing the instruments used, image sources and technical descriptions, a cross-reference list of galaxies, and plots of spectral energy distributions.

Mackie began compiling the atlas images when he was a research astronomer at Harvard-Smithsonian Center for Astrophysics in the late 1990s.

He envisaged the atlas as a textbook for astronomy students and a reference for professional astronomers, but it is also suitable for astronomy enthusiasts interested in learning more about the processes that have shaped and structured our universe.

More information: The Multiwavelength Atlas of Galaxies [can be purchased](#) at the Cambridge University Press website.

Provided by Swinburne University of Technology

Citation: A visual feast of galaxies (2011, February 14) retrieved 26 April 2024 from

<https://phys.org/news/2011-02-visual-feast-galaxies.html>

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