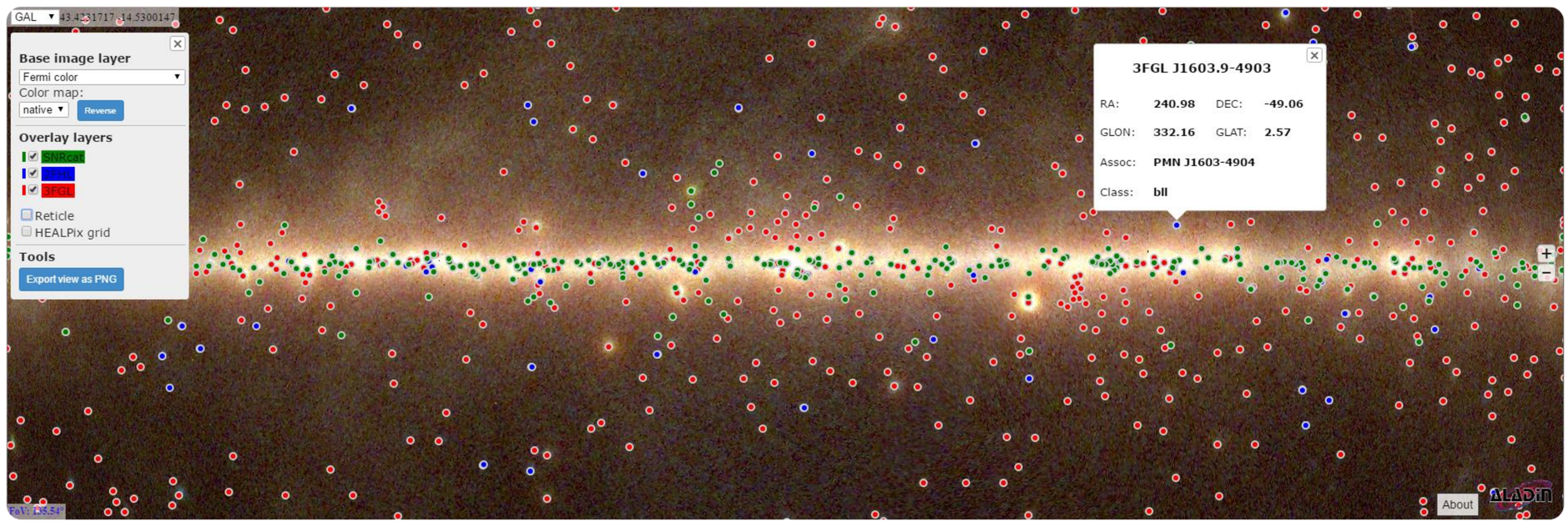
gamma-sky.net

Portal to the gamma-ray sky

Arjun Voruganti, Christoph Deil, Axel Donath, Johannes King
Max-Planck-Institut für Kernphysik, Heidelberg, Germany



Idea

gamma-sky.net is a novel interactive website designed for exploring the gamma-ray sky. It is geared towards both professional astronomers and the general public.

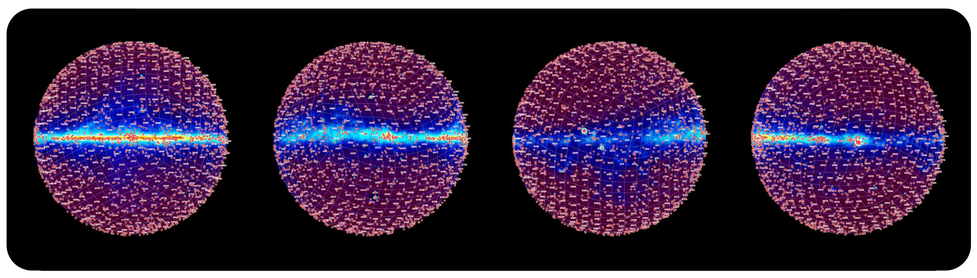
Survey images are overlaid onto a three-dimensional sky map, and gamma-ray source catalog data are pinpointed. The setup allows for easy navigation and quick browsing.

It is **open-source**; images and catalogs are freely available.

The Fermi Large Area Telescope (Fermi-LAT).

Features

- Gamma-ray images displayed on a sphere visualization
- Pan and zoom
- Powerful search tools to locate objects by name, association or coordinate position
- Export and share a certain view of the sky map
- Toggle and view specific catalog layers and sky images
- Informative pop-ups over each source



Fermi-LAT HEALPix image projected on the sphere.

Data

The resource incorporates high-energy survey images and table information generated from the 3FGL and 2FHL catalogs of the Fermi Large Area Telescope (Fermi-LAT), as well as the SNRcat catalog.

More all-sky image and catalog data will be added to the website soon, including from the Planck satellite and the H.E.S.S. Galactic Plane survey upon its public release.

Implementation

- Gammapy and Astropy Python packages used to make scripts that generate catalog and map data.
- Data consumed with JavaScript and HTML. Architecture organized by JavaScript's Angular 2 framework to compile the website into a single-page app
- Sphere interface created and maps overlaid with the Aladin Lite tool

Status + Plan

The website is a new project, having been deployed very recently on **http://gamma-sky.net** in early June 2016.

Further implementations into the webpage include more visualizations such as Python-generated light curves.

Join Us!

We continue to expand our website and its content through collaborations and feedback.

If you would like to contribute data or code, or simply leave us comments and feature requests, check out our GitHub page. We would greatly appreciate it!

http://github.com/gammapy/gamma-sky

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- Centre de Données astronomiques de Strasbourg (CDS) for producing and hosting HIPS images, and developing the Aladin Lite client
- GitHub Pages for hosting our website
- Data resources: Fermi-LAT, SNRcat [http://www.physics.umanitoba.ca/snr/SNRcat]

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