Large Area Telescope First Year Data Released

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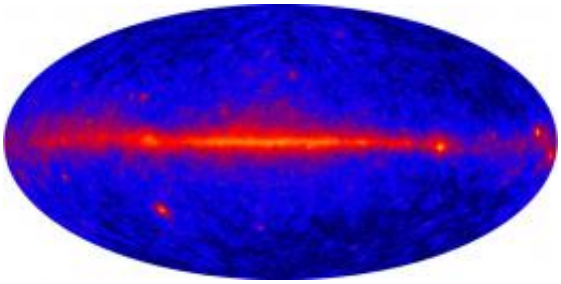

This all-sky view from the Fermi telescope reveals bright emission in the plane of the Milky Way (center), bright pulsars and super-massive black holes. (Image: NASA/DOE/International LAT Team.)

(PhysOrg.com) -- Ever since the Large Area Telescope launched aboard the Fermi Gamma-ray Space Telescope in June 2008, the LAT team has been analyzing data, searching for answers to some of the most pressing questions in astrophysics. Now everyone else can join in.

Today, the collaboration and the Fermi mission makes the first year of LAT gamma-ray data publicly available.

"This is a way of maximizing the scientific return from the mission," said Fermi Project Scientist Julie McEnery. "There is a very large number of scientists in the community with very good ideas of what to do with this data. By sharing it among a large group of people, we really get a lot more."

To ensure that others in the astrophysics community can take full advantage of the data, the LAT collaboration, working with the Fermi Science Support Center at NASA Goddard Space Flight Center, has spent a considerable amount of time preparing for the release.

"It took significant effort both on our side and the Goddard side to both get the data out and to get it out in a form that's usable by the whole community," said Astrophysicist Jim Chiang, LAT Collaboration member who works on the analysis software for FGST.

The data set released today includes more than 150 million detected gamma rays. In contrast, in the more than nine years that the LAT's predecessor, EGRET, operated, it collected 1.4 million gamma rays. In all, the LAT has collected more than 100 times as many photons in about one-tenth the time.

As in all particle physics experiments, Chiang said, LAT data are unique to the instrument and require unique software. With this in mind, the collaboration will also make available high-level software that other researchers will need in order to analyze the data. In addition, NASA is offering further resources and funds to guest investigators who successfully submit proposals.

"We can see both from the large number proposals submitted to the guest investigator program and the large number of references in papers that the community is excited about the data," McEnery said.

LAT Principal Investigator Peter Michelson added: "The LAT team has made significant discoveries and significant progress in many areas. I expect that the collaboration will continue to come out with the most results, but I also expect others to make discoveries. Releasing this data is good for the project, good for the collaboration, and good for science."

More information: fermi.gsfc.nasa.gov/ssc/

Provided by SLAC National Accelerator Laboratory (news : web)