3D-PRINTED ASTRONOMY

We are using 3D printing to make models of astronomical objects and phenomena. The models can be used as jewelry, keychains, or anything else you can think of to do with them!

Pulsar Model

A tiny model of a pulsar, a small, rapidly rotating remnant of a massive star. A strong magnetic field channels a beam of radio emission along the magnetic axis, which is offset from the axis of rotation. The model includes a small loop for hanging from a chain.





Binary Inspiral

The gravitational waves recently detected by LIGO, the Laser Interferometer Gravitational-Wave Observatory, were produced by the merger of two black holes. The binary black holes orbit each other, spiraling closer and closer together as they lose energy due to the emission of gravitational waves, until they finally merge. When galaxies merge, the supermassive black holes at their centers are also expected to merge and produce gravitational waves. These may be detected by observations of pulsars.

This is a small model of the inspiraling binary black hole system just before merging, with the spiral representing the gravitational waves. The model includes a small loop for attaching to a chain.





Spiral Galaxy

A small model inspired by a spiral galaxy, in which a disk of stars in spiral arms surround a central bulge.





Get your own!

Files to print your own versions of these models can be downloaded at the url below, or you can buy models printed in a variety of materials. Scan the QR code below to find links to these pages!

Scan for more information!



http://www.cgca.uwm.edu/outreach/maker.html





eonard E. Parker Center for Gravitation, Cosmology & Astrophysics at the University of Wisconsin-Milwaukee



North American Nanohertz Observatory for Gravitational Waves Physics Frontiers Center