



On the cover:
When a star ventures too close to a monster black hole, the beast tears the ill-fated star apart.
ART BY CASEY REED

FEATURES

- COVER STORY** 16 **Star-Shredding Black Holes**
Dormant black holes turn into ravenous beasts when renegade stars wake them from their slumber.
By Suvi Gezari
- 24 **The Chelyabinsk Super-Meteor**
Scientists are piecing together the story of the largest asteroid impact with Earth since 1908.
By Daniel D. Durda
- 32 **The Story of Einstein's Telescope**
A telescope made specifically for the iconic physicist was long forgotten, but it has recently been brought back to life. *By Eden Orion*
- 38 **The Determined Observer's Guide to M101**
Few galaxies show as much detail as this dim, gigantic spiral does when viewed under dark skies.
By Howard Banich
- 70 **Image Processing with CCDStack2**
Improve your deep-sky images with this innovative program.
By Bob Fera

SKY & TELESCOPE (ISSN 0037-6604) is published monthly by Sky & Telescope Media, LLC, 90 Sherman St., Cambridge, MA 02140-3264, USA. Phone: 800-253-0245 (customer service/subscriptions), 888-253-0230 (product orders), 617-864-7360 (all other calls). Fax: 617-864-6117. Website: SkyandTelescope.com. © 2013 Sky & Telescope Media, LLC. All rights reserved. Periodicals postage paid at Boston, Massachusetts, and at additional mailing offices. Canada Post Publications Mail sales agreement #40029823. Canadian return address: 2744 Edna St., Windsor, ON, Canada N8Y 1V2. Canadian GST Reg. #R128921855. POSTMASTER: Send address changes to Sky & Telescope, PO Box 420235, Palm Coast, FL 32142-0235. Printed in the USA.

- OBSERVING JUNE**
- 43 **In This Section**
- 44 **June's Sky at a Glance**
- 45 **Binocular Highlight**
By Gary Seronik
- 46 **Planetary Almanac**
- 47 **Northern Hemisphere's Sky**
By Fred Schaaf
- 48 **Sun, Moon & Planets**
By Fred Schaaf
- 50 **Celestial Calendar**
By Alan MacRobert
- 54 **Exploring the Moon**
By Charles Wood
- 56 **Deep-Sky Wonders**
By Sue French

S&T TEST REPORT

- 60 **S&T Test Report**
By Gary Seronik

ALSO IN THIS ISSUE

- 6 **Spectrum**
By Robert Naeye
- 8 **Letters**
- 9 **75, 50 & 25 Years Ago**
By Roger W. Sinnott
- 10 **News Notes**
- 14 **Cosmic Relief**
By David Grinspoon
- 64 **New Product Showcase**
- 66 **Telescope Workshop**
By Gary Seronik
- 68 **Q&A**
By Alan MacRobert
- 76 **Gallery**
- 86 **Focal Point**
By Ken Kalfus



There's more to find online @
SkyandTelescope.com

MONTHLY SKY PODCAST

Listen as we guide you through this month's celestial sights.
SkyandTelescope.com/podcasts



ADAM BLOCK / MOUNT LEMMON SKYCENTER / UNIVERSITY OF ARIZONA

SKYWEEK

Watch our weekly PBS segment to find out what's currently up in the sky.
skyweek.com

FIND PRODUCTS & SERVICES

Our easy-to-use directory will help you find what you need.
SkyandTelescope.com/directory

TIPS FOR BEGINNERS

New to astronomy? Here's everything you need to jump into the fun.
SkyandTelescope.com/letsgo

Find us on Facebook & Twitter