Subject index

absolute visual magnitude, 1:86 active region 9393, 7:22 Africa, observation from, 4:107-112, 10:48-53 Andromeda Galaxy constellations of, 11:64-69 consuming other galaxies, 12:25 warp in disk of, 5:22 animal astronauts, 4:43-47 apparent visual magnitude, 1:86 Apus (constellation), 7:80-84 Aquila (constellation), 8:66-70 Ara (constellation), 7:80-84 Aries (constellation), 11:64-69 artwork, astronomical, 12:80-85 asteroids around Zeta Leporis (star), 11:26 near Earth, 8:44-49 astronauts, animal as, 4:43-47 astronomers, amateur, 10:88-89 astronomical models, 9:22, 24 Astronomy.com website, 1:78-84 astrophotography black holes, 1:26, 28 costs of basic equipment, 5:86 photographic plates, 7:46-47 photographing star trails, 7:75-78 atoms, 8:72 Aurora Borealis (northern lights), 7:107-109

B

Banard, Edward E., 5:52-57 "Beskydy" bolide, 2:115-118 Bethe, Hans, 9:38-44 binoculars benefits/limitations of, 7:86-87 buyer's guide, 6:72-77 general information, 6:68-77 observing planets with, 1:87 why not more popular, 7:86-87 black holes at center of Milky Way, 10:43-47 edges of, 10:22, 24 event horizons of, 5:24, 26 general information, 4:48-53 at heart of every galaxy, 2:34-39 imaging, 1:26, 28 relationship to host galaxies, 4:22, 24 spinning, 8:19 and star births, 3:24, 9:28 whether exist, 12:96-97 in XTE J118+480 (microquasar), 12:24 blueshift, 3:86-87 Bonestell, Chesley, 12:80-85 brown dwarf stars, 10:26, 28

С

Callisto (Jupiter's moon), 12:25, 28 camcorders, mounts for, 6:81 cassini spacecraft, 4:28–35 Cassiopeia (constellation), 1:80–84 Celestron NexStar GT telescopes, 7:69–72 Cepheus (constellation), 12:88–93 Chandra X-ray Observatory, 5:36–41 Chandra X-ray Observatory, telescope of, 12:76 Christmas Star, 1:102 cold dark matter, 3:24, 26 colors, of celestial objects, 9:82-83 Comet Borrelly, 9:33-37 comets, 2:93 computers, accessing image archives with, 7:40-45 corona of Sun, 1:24, 26 cosmic rays general information, 1:36-39 origin of, 1:43-47 cosmology and particle physics, 6:39-43 unanswered questions, 6:46-52

D

dark matter cold, 3:24, 26 distribution of, 12:30, 32 whether exists, 8:26–31 deep sky objects, 7:87 Delphinus (constellation), 10:72–76 DigitalSky Voice software, 8:65 Dobson, John, 9:68–71 Dobsonian telescopes general information, 9:74–77 observing deep sky objects with, 7:87 Dorado (constellation), 2:78–82

E

Earth images of from IKONOS satellite, 12:47-51 orbit and tilt of, 4:80-81, 8:73 planet like Earth, 3:38-43 size of, 10:84 water on, origin of, 3:87 whether summer hotter in Southern Hemisphere, 6:81 whether unique, 3:55-57 earthshine, 9:30 eclipses lunar of Jan. 8, 2001, 6:107-108 of Jan. 9, 2001, 5:113-120 of July 5, 2001, 11:113-116 observing from Africa, 10:48-53 solar of Dec. 25, 2000, 1:98-99, 5:113-120 of June 21, 2001, 5:72-75, 10:107-112 epoch coordinates, 9:80 Eros (asteroid), 3:44-47 ESO. See European Southern Observatory (ESO) Europa (Jupiter's moon), 8:33-37 European Southern Observatory (ESO) (Chile), Yepun telescope, 1:32 event horizons, 5:24, 26 extraterrestrial life, 9:80, 11:90-91

F

47 Tucanae (globular star cluster), 2:22, 9:20, 22 433 Eros asteroid, 5:20 free-floating planets, 2:20, 22

G

Gagarin, Yuri, 4:36-41 galaxies clusters of in constellation Leo, 5:28 Massive Cluster Survey (MACS), 3:28 collisions of, 6:24 space between, 9:81 gamma ray bursts, 1:28, 30 Ganymede (Jupiter's moon), 5:26 Gemini Telescope, 2:26, 28 Giodorno Bruno crater, 11:28, 30 Gliese 876 (red dwarf star), 4:18 globular clusters, viewing, 8:72 green stars, 3:82-85 Groundhog Day, 2:96-97

H

Hale Telescope, 9:46–53 HD 168443 (star), 4:18 HD 82943 (star), 8:18 HH 237 (meteor), 6:22 HR 1998 (star), 11:26 HST. *See* Hubble Space Telescope (HST) Hubble Space Telescope (HST) extended focus on star or galaxy, 1:86– 87 why fuzzy images of closer objects, 7:87 humid weather, observation during, 7:88

I

ice ages, 8:73 IKONOS satellite, 12:47–51 interferometry, 7:23–24 International Star Registry (ISR), 4:84 Io (Jupiter's moon) February 2000 flyby, 2:22, 24 volcanism of, 6:26 Ireland, astronomical sites in, 5:46–51 ISR (International Star Registry), 4:84

J

Jupiter See also names of specific moons of Jupiter (Europa, Ganymede, Io) moons of, 4:16 size of, 3:87

K

Keck Telescope, 7:23–24 Kolb, Edward W. "Rocky", 6:45 Kuiper Belt, 10:24 KX₇₆ (Kuiper Belt Object), 10:24

L

Lacerta (constellation), 12:88–93 La Palma (Canary Islands), 1:63–67 Large Magellanic Cloud (LMC) Tarantula Nebula in, 11:15 whether nearest galaxy to Milky Way, 5:87 Leo (constellation), 5:28

Liberty Bell 7 space capsule, 10:34–41 lithium, origin of, 6:28 LMC. *See* Large Magellanic Cloud (LMC) low-mass objects, in Sigma Orionis (star cluster), 2:20, 22

Μ

M22 (globular cluster), 11:32 M32 (galaxy), 12:25 MACHOs. See MAssive Compact Halo Objects (MACHOs) MACS. See Massive Cluster Survey (MACS) Maksutov-Cassegrain telescope, 4:81 Mars as "bad-luck" planet, 6:88-89 brightness and size during summer of 2001, 7:48-53 cost of manned mission to, 9:81 craters on, green, 4:22 exploration of, 12:41-45 geology of, 3:20-22 life originating from, 2:28 Tharsis rise on, 8:19-20 water on, 5:87 Massive Cluster Survey (MACS), 3:28 MAssive Compact Halo Objects (MACHOs), 5:28, 30 Meade ETX-60AT refractor, 2:72-76 Meade ETX-70AT refractor, 2:72-76 Mensa (constellation), 2:78-82 meteors and meteorites determining origin of, 12:77 searching for, 3:48-53, 9:24, 26 MGIO (Mount Graham International Observatory), 3:30 military innovations, and astronomy, 1:48-53 Milky Way Galaxy 100 billion years from now, 11:39-45 center of, 2:26, 28 photos from within, 11:58-63 x-ray emission from galaxy's plane, 11:30.32 MirCorp, space station planned by, 12:28, 30 models, astronomical, 9:22, 24 moon (Earth's) See also eclipses, lunar further investigation of, 2:92-93 Giodorno Bruno crater, 11:28, 30 illumination from earthshine, 9:30 photographing, 1:129 mountaintops, observation from, 2:51-57 Mount Graham International Observatory (MGIO), 3:30 mounts, telescope, 5:78-81 MUSES-C mission, 2:28

Ν

NASA (National Aeronautics and Space Administration) cancellation of Pluto mission, 1:22, 24 cancellation of rover for MUSES-C mission, 2:28 NEAR Shoemaker, 5:20 nebulae, *see also names of specific nebulae*, 8:72 Neptune, 3:30, 32 NexStar GT telescope, 7:69–72 NGC 205 (galaxy), 12:25 NGC 4631 (galaxy), 11:26, 28 NGT-6 equatorial split-ring mount, 10:68– 71 night vision, 8:100–104 NOAO Deep Wide-Field Survey, 5:43–45 northern lights. *See* Aurora Borealis (northern lights)

0

observation, astronomical from mountaintops, 2:51–57 during muggy weather, 7:88 western sky, 1:6 observatories *See also names of specific observatories* observation time at, 2:46–51 Oort Cloud, 6:20, 22 Ophiuchus (constellation), 6:82–86 optical interferometer technology, 4:81 Orion Nebula, 8:22, 24

Р

Palomar Observatory, 9:46-53 particle physics, 6:36-43 photographic plates, 7:46-47 physics particle physics, 11:46-49 string theory, 11:46–49 Pictor (constellation), 2:78-82 planetariums, digital capabilities, 10:78-83 planetary systems, like our own, 10:20 planets formation of in Orion Nebula, 8:22, 24 free-floating, 2:20, 22 free-floating, in Sigma Orionis (star cluster), 2:20, 22 gaseous, why have sharp-cut edges, 6:80 like Earth, 3:38-43 observing with binoculars, 1:87 of solar system, basic facts about, 3:59-62 Pleiades (star cluster), 2:92 Pluto mission, cancellation of, 1:22, 24 Polaris (North Star), 1:86 precious metals, cosmic birth of, 7:28 pulsars age of, 4:20 in Small Magellanic Cloud (SMG), 8:20, 22

Q

quasars, 7:36–39 QUE 94411 meteor, 6:22, 24

R

religion and astronomy, 6:80-81

S

Sagitta (constellation), 10:72–76 SALT (South African Large Telescope), 1:32 Saturn, moons of, 2:26, 10:30 Schmidt-Cassegrain telescope, 4:81

Scutum (constellation), 8:66-70 SETI (Search for Extraterrestrial Intelligence), 12:58-63 Sigma Orionis (star cluster), 2:20, 22 Sirius B (star), 8:72-73 Sloan Digital Sky Survey, 9:20 Small Magellanic Cloud (SMG), 8:20, 22 SN 1997ff supernova, 7:20 solar eclipses. See eclipses, solar solar system basic facts about planets of, 3:59-62 edge of, 3:32 South African Large Telescope (SALT), 1.32 space station, planned by MirCorp, 12:28, 30 Spacewatch Project, 1:32 stars See also brown dwarf stars elements of within living things, 1:57-60 estimating distance to, 3:86 formation of, 3:24, 7:28, 30 green, 3:82-85 hot stars, why bluer than cool stars, 10:84-85 how shine, 9:38-44 overgrown, supermassive, 10:24, 26 photographing star trails, 7:75-78 string theory, 11:46-49 Sun See also eclipses, solar corona of, 1:24, 26 if exploded, 5:87 observing, 4:72-75 photographing, 1:90-94 spots on, 7:22 suns, twin, 4:80 superclusters, 5:28 Supernova 1987A, 4:26 supernovae, 12:76-77

Т

Tarantula Nebula, 11:15 telescopes, amateur See also names of specific telescopes DigitalSky Voice software for, 8:65 mounts for, 5:78-81 night vision for, 8:100-104 sharpening images, 2:84-88 telescopes, professional future of, 2:40-45 image archives of, 7:40-45 Tele Vue 101 telescope, 3:77-81 Tele Vue 102 telescope, 11:82-85 Texas Star Party, 4:68-71 TRACE (Transition Region and Coronal Explorer) spacecraft, 1:24, 26 Triangulum (constellation), 7:80-84, 11:64-69 Turner, Michael, 6:45 twin suns, 4:80 2MASS (Two-Micron All-Sky Survey), 11:48-55 Two-Micron All-Sky Survey (2MASS), 11:48-55 2001 KX76 (Kuiper Belt Object), 12:34

U

UFOs (Unidentified Flying Objects), 3:90 universe early, darkness in, 11:24 future of, 12:52–56 Uranus, 3:30, 32

V

Venus, mistaken as UFO, 3:90 Very Large Telescope (VLT), 7:23–24 Viexen/Orion VX-120GP refractor, 3:77–81 Vulpecula (constellation), 10:72–76

W

water importance of, 8:38–43 origin of, 3:87 weather, observation during muggy weather, 7:88 Whale galaxy. *See* NGC 4631 (galaxy)

Х

x-ray astronomy diffuse glow of x-rays, 7:24, 26 x-ray emission from Milky Way's plane, 11:32 x-ray halo of NGC 4631 (galaxy), 11:26, 28 XTE J118+480 (microquasar), 12:24

Z

Zeta Geminorum (star), 1:30, 32 Zeta Leporis (star), 11:26

Author index

А

Adams, Fred Celebrating the Galactic Millennium, 11:38–45

B

Bartusiak, Marcia Predicting the Past, 2:40–45 Beres, Samantha Home Sweet Spheres, 3:59–62 Berman, Bob Is the Universe Irish, 3:82–85 Sharpen Your Images, 2:84–88 Bourassa, Shelly Lone Star No More, 4:68–71

С

Carroll, Michael Red Planet Turns Green, The, 4:22 Chaple, Glenn F. Jr. Go to the NexStar on Your List, 7:68–72 Cole, K.C. Nothing Gets Strung Out, 11:46–49 Comins, Neil F. Get the Hole Story, 4:48–53 We Are All Star Stuff, 1:56–60

D

DeBolt, Eric Happy Trails, 7:74–78 Deeg, Hans-Jorg Discovering Worlds in Transit, 3:38–43 Dorminey, Bruce G. Fall of Cold Dark Matter, The, 3:24, 26 Doyle, Laurance R. Discovering Worlds in Transit, 3:38–43 Dragesco, Jean Sunsational Photography, 1:90–94 Durda, Daniel D. Stepping Stones to Mars, 8:44–49

Е

Edberg, Steve Holding Steady, 5:52–57 Voices in the Night, 8:64–65 Eicher, David J. Celebrating Ireland's Cosmic Ties, 5:46– 51 Telescopes for the Masses, 2:72–76

F

Fazekas, Andrew S. Painting the Universe, 12:80–85 Frank, Adam Probing the Birth of a Starlight, 9:38–44

G

Garlick, Mark A. Quasars Next Door, 7:34–39 Gordon, Bonnie Eclipse Chasers on Safari, 10:48–53 Graham, Rex Deep-Dish Cosmologists, 6:44–45 NASA Shelves Pluto Mission, 1:22, 24 Near Look at Eros, A, 3:44–47

Н

Harrington, Phil All You Need to Know about Binoculars, 6:68–77 Here Comes the Sun, 4:72–75 Next Generation, The, 10:68–71 The Simpler... The Better, 11:82–85 Who Let the Dobs Out?, 9:74–77 Hartmann, William K. Mars Geology Grows More Intriguing, 3:20, 22 Hellemans, Alexander Imaging a Black Hole, 1:26, 28 Hewitt-White, Ken Taking the High Road, 2:52–57

I

Irion, Robert Primetime, 2:46–51

J

Jakiel, Richard The Man Who Tracked Nebulae, 5:52– 57 Jenkins, Jon M. Discovering Worlds in Transit, 3:38–43

K

Krauss, Lawrence From Here to Eternity, 12:52–56

L

Laughlin, Greg Celebrating the Galactic Millennium, 11:38–45

M

Mackenzie, Dana Is There Life Under the Ice?, 8:32–37 Mayer, Lindsay Renick Getting a Rise out of Mars, 8:19–20 Misch, Anthony Digitizing Astronomy''s Glass Plates, 7:46–47 Morledge, Paul Just a Heavenly Coincidence, 11:28, 30 By the Light of the Moon, 9:30 Through a Cluster, Darkly, 12:30, 32 Tightening a Star's Belt, 11:26 Walking among Baby Giants, 10:24, 26

N

Nadis, Steve Here, There, and Everywhere?, 2:34–39 Out of Sight, Out of MOND, 8:26–31 Naeye, Robert Keepers of the Night, 9:46–53 Ocean for Ganymede, Too, An, 5:26 Odd New Planets Discovered, 4:18 A Planetary System Like Our Own, 10:20 Spying a Planet-Eating Star, 8:18

0

Oberg, James Military Magic Boosts Astronomy, 1:48–53

Р

Perry, Paul Diving for Spacecraft, 10:34–41 Polakis, Tom Andromeda, Triangulum, and Aries, 11:64–69 Aquila and Scutum, 8:66–70 Ara, Triangulum, and Apus, 7:80–84 Cassiopeia, 1:80–84 Cepheus and Lacerta, 12:88–93 Ophiuchus, 6:82–86 Pictor, Dorado, and Mensa, 2:78–82 Sagitta, Delphinus, and Vulpecula, 10:72–76 Pommier, Rod Big Scopes Go Nose to Nose, 3:76–81

R

Ratcliffe, Martin New Views of Volcanic Io, 2:22, 24

The Planetarium Revolution, 10:78–83 Twin Asteroid Discovered, 3:22, 24 Rees, Martin Is Earth Unique, 3:54–57 Ryback, Carol Seeing Red on Mount Graham, 3:30

S

Schefter, Jim When Yuri Took Flight, 4:36-41 Schomaker, William Big Fish in the Kuiper Belt, 10:24 Black Hole Goes for a Spin, 8:19 Black Hole on the Loose, 12:24 Bucking Black-Hole Rules, 4:22, 24 Chandra Spies Whale of a Halo, 11:26, 28 Cosmic Birth of Precious Metals, 7:28 Cosmic Models Match Reality, 9:22, 24 Going Deep for Galaxies, 5:42-45 How to Make a Brown Dwarf, 10:26, 28 Jets May Trigger Supernovae, 4:26 Jupiter's Royal Court Grows by Eleven, 4:16 Listening for Meteors, 9:24, 26 Lonely, Dim Objects Spark Big Debate, 2:20.22MACHO Team Has Reason to Boast, 5:28, 30 Magic at Two Microns, 11:50-55 Milky Way Mystery Solved, 11:30, 32 The Milky Way's Twisted Sister, 5:22 MirCorp Plans Space Station, 12:28, 30 Mystery Objects Wander M22, 11:32 A New Year's Resolution, 1:30, 32 Resolving to Be Better, 7:22, 24 Scientists Probe Life's Early Days, 11:22 Space Rocks Bridge the Gap, 6:22, 24 Spying a Super-Supercluster, 5:28 Of Starbursts and Black Holes, 9:28 Supernova Sheds Light on Deep Mystery, 7:20 Survival of the Fittest?, 8:22, 24 TRACE Turns Up the Heat, 1:24, 26 On the Trail of Lithium, 6:26, 28 Trim New Look for the Oort Cloud, A, 6:20, 22 When Darkness Ruled the Cosmos, 11:24 Semeniuk, Ivan Showered in Mystery, 1:42-47 Sincell, Mark The 8 Greatest Mysteries of Cosmology, 6:46-52 Cybertrackers, 7:40-45 Stephens, Sally Listening for E.T., 12:58-63 Sullivant, Rosemary On the Road with John Dobson, 9:68-71

Т

Talcott, Richard Ages of Pulsars May Be Wrong, 4:20 Another Record-Setting Burst, 1:28, 30 Biggest Asteroid Yet, The, 12:32, 34 Big Storm Puts Sun in Spotlight, 7:22 Black Holes Act as Midwives, 3:24 Breaking Up Is Easy to Do, 10:28, 30

Callisto's Odd Landscape, 12:25, 28 A Cannibal in Our Midst, 12:25 Closeup on Distant Giants, 3:30, 32 Collision Forms Giant Clusters, 6:24 Eclipse Chasers on Safari, 10:48-53 Edge of the Solar System, 3:32 Embracing the Sun, 1:98–99 Gemini Reveals Galaxy's Center, 2:26, 28 A Giant Awakens Cassini, 4:28-35 Going Deep in X Rays, 7:24, 26 Hello Darkness My Old Friend, 5:52-57 Io's Volcanoes: A Rush to Erupt, 6:26 Mars Returns to Glory, 7:48-53 Nearby Galaxy Rich in Pulsars, 8:20, 22 No Planets in Globular Cluster, 2:22 Science Flows from Sloan Survey, 9:20 Seeing a Black Hole's Edge, 10:22, 24 Seeing an Invisible Horizon, 5:24, 26 Six More Moons for Saturn, 2:26 Star Birth Rages Like Fire, 7:28, 30 Survey Finds Huge Clusters, 3:28 Trefil, James

Discovering Cosmic Rays, 1:36–39

W

Weed, William Speed Chasing a Comet, 9:32–37 What's Water Got to Do with It?, 8:38– 43 Whitt, Kelly Kizer Destination: La Palma, 1:62–67 The Milky Way from the Inside, 11:58– 63 Reluctant Astronauts, 4:42–47 Seeing Through an Unblinking Eye, 12:46–51

Y

Yulsman, Tom In Search of Fresh Fall, 3:48–53

\mathbf{Z}

Zimmerman, Robert Heart of Darkness, 10:42–47 Inside-Out Cosmology, 6:38–43 Launching a Caravan to Mars, 12:40–45 NEAR-Shoemaker Scores a Touchdown, 5:20 Seeing with X-ray Eyes, 5:36–41 A Square Dance in Space, 9:20, 22

<u>Title index</u>

A

Ages of Pulsars May Be Wrong, 4:20 All You Need to Know about Binoculars, 6:68–77 Another Record-Setting Burst, 1:28, 30

B

Big Fish in the Kuiper Belt, 10:24 Biggest Asteroid Yet, The, 12:32, 34 Big Scopes Go Nose to Nose, 3:76–81 Big Storm Puts Sun in Spotlight, 7:22 Black Hole Goes for a Spin, 8:19 Black Hole on the Loose, 12:24 Black Holes Act as Midwives, 3:24 Breaking Up Is Easy to Do, 10:28, 30 Bucking Black-Hole Rules, 4:22, 24 By the Light of the Moon, 9:30

С

Callisto's Odd Landscape, 12:25, 28 Cannibal in Our Midst, A, 12:25 Celebrating Ireland's Cosmic Ties, 5:46-51 Celebrating the Galactic Millennium, 11:38-45 Celestial Portraits: Andromeda, Triangulum, and Aries, 11:64-69 Celestial Portraits: Aquila and Scutum, 8:66-70 Celestial Portraits: Ara, Triangulum, and Apus, 7:80-84 Celestial Portraits: Cassiopeia, 1:80-84 Celestial Portraits: Cepheus and Lacerta, 12:88-93 Celestial Portraits: Ophiuchus, 6:82-86 Celestial Portraits: Pictor, Dorado, & Mensa, 2.78 - 82Celestial Portraits: Sagitta, Delphinus, and Vulpecula, 10:72-76 Chandra Spies Whale of a Halo, 11:26, 28 Chasing a Comet, 9:32-37 Closeup on Distant Giants, 3:30, 32 Collision Forms Giant Clusters, 6:24 Cosmic Birth of Precious Metals, 7:28 Cosmic Models Match Reality, 9:22, 24 Cybertrackers, 7:40-45

D

Deep-Dish Cosmologists, 6:44–45 Destination: La Palma, 1:62–67 Digitizing Astronomy''s Glass Plates, 7:46– 47 Discovering Cosmic Rays, 1:36–39 Discovering Worlds in Transit, 3:38–43 Diving for Spacecraft, 10:34–41

Е

Eclipse Chasers on Safari, 10:48–53 Edge of the Solar System, 3:32 8 Greatest Mysteries of Cosmology, The, 6:46–52 Embracing the Sun, 1:98–99

F

Fall of Cold Dark Matter, The, 3:24, 26 From Here to Eternity, 12:52–56

G

Gemini Reveals Galaxy's Center, 2:26, 28 Get the Hole Story, 4:48–53 Getting a Rise out of Mars, 8:19–20 Giant Awakens Cassini, A, 4:28–35 Going Deep for Galaxies, 5:42–45 Going Deep in X Rays, 7:24, 26 Go to the NexStar on Your List, 7:68–72

Н

Happy Trails, 7:74–78 Heart of Darkness, 10:42–47 Hello Darkness My Old Friend, 5:72–75 Here Comes the Sun, 4:72–75 Here, There, and Everywhere?, 2:34–39 Holding Steady, 5:78–81 Home Sweet Spheres, 3:59–62 How to Make a Brown Dwarf, 10:26, 28

I

Imaging a Black Hole, 1:26, 28 Inner Space and Outer Space, 6:36–37 In Search of Fresh Fall, 3:48–53 Inside-Out Cosmology, 6:38–43 Io's Volcanoes: A Rush to Erupt, 6:26 Is Earth Unique, 3:54–57 Is There Life Under the Ice?, 8:32–37 Is the Universe Irish, 3:82–85

J

Jets May Trigger Supernovae, 4:26 Jupiter's Royal Court Grows by Eleven, 4:16 Just a Heavenly Coincidence, 11:28, 30

K

Keepers of the Night, 9:46–53

L

Launching a Caravan to Mars, 12:40–45 Listening for E.T., 12:58–63 Listening for Meteors, 9:24, 26 Lonely, Dim Objects Spark Big Debate, 2:20, 22 Lone Star No More, 4:68–71

Μ

MACHO Team Has Reason to Boast, 5:28, 30 Magic at Two Microns, 11:50–55 Man Who Tracked Nebulae, The, 5:52–57 Mars Geology Grows More Intriguing, 3:20, 22 Mars Returns to Glory, 7:48–53 Milkiary Magic Boosts Astronomy, 1:48–53 Milky Way from the Inside, The, 11:58–63 Milky Way form the Inside, The, 11:58–63 Milky Way form the Inside, The, 11:58–63 Milky Way's Twisted Sister, The, 5:22 MirCorp Plans Space Station, 12:28, 30 Mystery Objects Wander M22, 11:32

Ν

NASA Shelves Pluto Mission, 1:22, 24 Nearby Galaxy Rich in Pulsars, 8:20, 22 Near Look at Eros, A, 3:44–47 NEAR-Shoemaker Scores a Touchdown, 5:20 New Views of Volcanic Io, 2:22, 24 New Year's Resolution, A, 1:30, 32 Next Generation, The, 10:68–71 No Planets in Globular Cluster, 2:22 Nothing Gets Strung Out, 11:46–49

0

Ocean for Ganymede, Too, An, 5:26 Odd New Planets Discovered, 4:18 Of Starbursts and Black Holes, 9:28 On the Road with John Dobson, 9:68–71 On the Trail of Lithium, 6:26, 28 Out of Sight, Out of MOND, 8:26–31

Р

Painting the Universe, 12:80–85 Planetarium Revolution, The, 10:78–83 Planetary System Like Our Own, A, 10:20 Predicting the Past, 2:40–45 Primetime, 2:46–51 Probing the Birth of a Starlight, 9:38–44

Q

Quasars Next Door, 7:34-39

R

Red Planet Turns Green, The, 4:22 Reluctant Astronauts, 4:42–47 Resolving to Be Better, 7:22, 24

S

Science Flows from Sloan Survey, 9:20 Scientists Probe Life's Early Days, 11:22 Seeing a Black Hole's Edge, 10:22, 24 Seeing an Invisible Horizon, 5:24, 26 Seeing Red on Mount Graham, 3:30 Seeing Through an Unblinking Eye, 12:46-51 Seeing with X-ray Eyes, 5:36-41 Sharpen Your Images, 2:84-88 Showered in Mystery, 1:42-47 Simpler... The Better, The, 11:82-85 Six More Moons for Saturn, 2:26 Space Rocks Bridge the Gap, 6:22, 24 Spying a Planet-Eating Star, 8:18 Spying a Super-Supercluster, 5:28 Square Dance in Space, A, 9:20, 22 Star Birth Rages Like Fire, 7:28, 30 Stepping Stones to Mars, 8:44-49 Sunsational Photography, 1:90-94 Supernova Sheds Light on Deep Mystery, 7:20 Survey Finds Huge Clusters, 3:28 Survival of the Fittest?, 8:22, 24

Т

Taking the High Road, 2:52–57 Telescopes for the Masses, 2:72–76 Through a Cluster, Darkly, 12:30, 32 Tightening a Star's Belt, 11:26 TRACE Turns Up the Heat, 1:24, 26 Trim New Look for the Oort Cloud, A, 6:20, 22 Twin Asteroid Discovered, 3:22, 24

V

Voices in the Night, 8:64-65

W

Walking among Baby Giants, 10:24, 26

We Are All Star Stuff, 1:56–60 What's Water Got to Do with It?, 8:38–43 When Darkness Ruled the Cosmos, 11:24 When Yuri Took Flight, 4:36–41 Who Let the Dobs Out?, 9:74–77