



The Custer Institute (est. 1927) www.CusterObservatory.org
LONG ISLAND'S OLDEST PUBLIC OBSERVATORY
1115 Main Bayview Road (South of Route 25), P.O. Box 1204, Southold, New York 11971; 631-765-2626

UPCOMING EVENTS: WINTER 2009

More events will be added and details provided about those listed below so please check our website for the latest info <http://www.CusterObservatory.org> If you have any questions, don't hesitate to contact CusterDonna@yahoo.com or call 631-765-2626.

GENERAL ADMISSION. Minimum suggested donation of \$5 Adults, \$3 Children under 14; FREE for Members. The suggested donation for the specific events listed below include the cost of General Admission.

After the events, remain for refreshments and guided tours of the night sky through Custer's telescopes. The observatory is open every Saturday evening from dusk until midnight.

IN-SERVICE CREDIT. Letters will be supplied upon request from teachers who attend classes and other educational events.

Wed., Dec. 31, 8:00 PM NEW YEAR'S EVE UNDER THE STARS: DINING, DANCING, MUSIC & MORE!
Now in its fourth year, there's no better way to celebrate the passing of the old and welcome in the new. A home-cooked buffet (you're welcome to bring your favorite dish or dessert to add to the table), dancing to live jazz by [Ahmad Ali](#) and Friends, champagne toast at midnight, and more. Suggested donation: \$20 Custer Members & their guests; \$25 Non-Members; \$10 Students; \$5 Kids under 14. To reserve, email CusterDonna@yahoo.com or call 631-765-2626.

Fri., Jan. 2, 7:00 - 10:00 PM OPEN MIC NIGHT: FIRST FRIDAY OF EVERY MONTH!
Interested in becoming a performer? This is a great opportunity for all you musicians, comics, poets, magicians and storytellers to let loose and get experience in front of a live audience. Everyone else: come and see the stars of tomorrow! Hosted by talented singer and songwriter, Liza Coppola. Suggested Donation: FREE (although any donation to help support our programs would be appreciated).

Sat., Jan. 3, 8:00 - midnight QUADRANTID METEOR SHOWER PARTY (weather permitting)
The peak of this strong shower will occur after midnight, between Jan. 3 and 4th. The point in the sky from which the meteors appear (the radiant) was once a constellation known as "Quadran Muralis"; look in the direction of the constellation Bootes. The shower is believed to be 500 years old, originating when asteroid 2003EH1 collided with a comet. The next major meteor shower (Lyrids) won't be until April so bundle up and join us as we watch (and listen to on our radio astronomy equipment) another one of nature's wonderful sky shows! Suggested donation = General Admission: \$5 Adults, \$3 Children under 14.

Sat., Jan. 10, 6:00-6:30 PM STORYTELLING AND MUSIC
The art of storytelling comes naturally to musician-author-storyteller [Johnny Cuomo](#), who has collected tales from his travels to different cultures. The stories are told while he plays a variety of instruments, a combination that's guaranteed to keep the attention of young and old alike. Join us for this unique cultural and musical experience. Suggested donation: \$8 Adults, \$5 Students & Children under 14.

Sat., Jan. 10, 8:00-9:00 PM JOHNNY CUOMO IN CONCERT
Native Long Islander and international musician, author, and storyteller Johnny Cuomo is a folk-flavored acoustic roots artist with influences in rock and traditional Irish music. He captures the essence of the American music experience from its beginnings to the present. Formerly lead singer for folk-rock band, Voice of the Turtle, he has since played solo across the U.S. and Ireland, opening for such groups as the Ramones, The Bogmen, Black 47, and The Prodigals. His current release, *American Idle*, can be found through his website: <http://www.JohnnyCuomo.com> Suggested donation: \$10 Members, \$13 Non-Members, \$5 Students.

Mon. & Wed., Jan. 12-28, 7-9PM CLASS: INTRODUCTION TO ASTRONOMY
This three-week course (on Jan. 12, 14, 19, 21, 26 and 28) is primarily designed for newcomers to the field of astronomy, but will also cover subjects of interest to experienced astronomers. Topics will include: astronomy basics, finding your way around the night sky, the use of star and planetary charts and software, observing with the naked eye and through telescopes (including hands-on experience with the telescopes at the observatory), astrophotography, updates on current NASA missions, and much more. Lots of interesting things to learn and amazing new sights to see. When weather permits, the class will be taken outside for in-field demonstrations and observing. Instructor: George Lomaga teaches astronomy at Suffolk County Community College and has been a member of the Custer Institute for decades. Suggested Donation: \$55 Members, \$70 Non-Members, \$35 Full-Time Students with ID.

Sat., Jan. 17, 7:30-9:30 PM HOW TO USE YOUR TELESCOPE: LECTURE AND WORKSHOP
Is there a telescope gathering dust in the closet because you don't know how to use it? Perhaps you have been using your telescope but it doesn't seem to be working quite right and you're asking yourself "Is it me or the equipment?" This lecture and workshop will provide all the answers. You'll learn all you ever wanted to know about telescopes and receive practical information that will help you get set up and observing right away. After the lecture, you'll receive hands-on help from the instructor and from Custer's Observatory Staff so bring your equipment with you. Instructor: Jeff Norwood is a veteran amateur astronomer, telescope mechanic, and owner of [Camera Concepts](#) in Patchogue. Suggested donation: \$13 Custer Members, \$15 Non-Members, \$5 Full-Time Students with ID.

Fri., Jan. 30, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

A Members-Only (and their guests) evening for mingling, observing, enjoying the observatory and its resources, discussing Custer's present and planning its future together. Coordinator: David Van Popering. Admission: FREE.

Sat., Jan. 31, 7:30-9:00 PM

IT'S NOT MAGIC, IT'S PHYSICS!

A fun way to learn and be demystified through lots of demonstrations and the "magic" of a van de Graaff generator that will make your hair stand on end! Physics is at the foundation of many other areas of knowledge. While simple and elegant, it is often considered one of the most difficult subjects to learn. Through a series of live demonstrations, Dr. Helio Takai will make understanding physics a snap. Demonstrations will involve light, sound, gravity, electricity, magnetism, semi-conductors, Brownian motion and particle physics. Each demo will describe a phenomenon and its relevance to daily life. This presentation is for all ages. Presenter: Dr. Helio Takai is a physicist at Brookhaven National Laboratory and a member of Custer's Research Committee. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

Fri., Feb. 6, 7:00 - 10:00 PM

OPEN MIC NIGHT: FIRST FRIDAY OF EVERY MONTH!

Interested in becoming a performer? This is a great opportunity for all you musicians, comics, poets, magicians and storytellers to let loose and get experience in front of a live audience. Everyone else: come and see the stars of tomorrow! Hosted by talented singer and songwriter, Liza Coppola. Suggested Donation: FREE (although any donation to help support our programs would be appreciated).

Fri., Feb. 27, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

A Members-Only (and their guests) evening for mingling, observing, enjoying the observatory and its resources, discussing Custer's present and planning its future together. Coordinator: David Van Popering. Admission: FREE.

Sat., Feb. 28, 7:30-9:00 PM

WHAT'S UP UNDER THE GROUND: THE GEOPHYSICS OF LONG ISLAND

Why is Long Island long? Why is it an island? Long Island may lack bedrock, but it doesn't lack interesting geology. Despite what we'd all like to believe, Long Island is not immune to earthquakes, including large and damaging ones. And much of what we take for granted about the Island--from the water we drink, to the soil which makes our vineyards thrive, to the very existence of the north and south forks--is a result of the Pleistocene glaciers. Since the end of the Ice Age, Long Island has been shaped in remarkable ways by the wind and the waves...just think of the dunes! You'll also learn about what the geological and geophysical studies, and such modern technology as ground-penetrating radar, reveal about many of Long Island's secrets and history. Presenter: Dr. Dan Davis is a geophysics professor at Stony Brook University. His research interests range from the formation of mountain belts, to glacial geology, to the application of geophysics to nuclear arms control and the study of icy satellites. He has a life-long passion for astronomy and is co-author of the best selling book, *Turn Left at Orion*. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

Fri., March 6, 7:00 - 10:00 PM

OPEN MIC NIGHT: FIRST FRIDAY OF EVERY MONTH!

Interested in becoming a performer? This is a great opportunity for all you musicians, comics, poets, magicians and storytellers to let loose and get experience in front of a live audience. Everyone else: come and see the stars of tomorrow! Hosted by talented singer and songwriter, Liza Coppola. Suggested Donation: FREE (although any donation to help support our programs would be appreciated).

Sat., March 7, 6:00-9:00 PM

ST. PAT'S DINNER AND CONCERT

The evening begins with dinner at 6:00 PM, a corned-beef and cabbage feast prepared by Chef Chuck O'Cardona (feel free to bring your favorite dish or dessert to add to the table). At 8:00 PM, enjoy a toe tapping concert of traditional Irish music by [Johnny Cuomo](#), renown among the Irish on both sides of the Atlantic. Suggested Donation: \$20 Members, \$25 Non-Members, \$10 Students, \$5 Kids under 14.

Fri., March 27, 7:00 PM

MEMBERS' NIGHT: LAST FRIDAY OF EVERY MONTH!

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Sat., March 28, 7:30-9:00 PM

THE HISTORY OF THE TELESCOPE

2009 is the "International Year of Astronomy" as it marks the 400th anniversary of the telescope. What better way to celebrate than by reviewing the history and evolution of the telescope? The discussion will start with Galileo, walk forward to the open air telescopes used by Huygens and others, Newton's invention of the refractor, and the many contributions made by William Herschel when he was moonlighting from his job as a court musician. Mirrors grew larger and began to fail (as with Lord Rosse's 72-inch in Ireland), then glass came to the rescue and big refractors like the 40-inch at Yerkes Observatory were born. Astronomical communities form in the best dark sky areas, and next generation telescopes with mirrors bigger than baseball infields arise. Presenter: Edward Furey is a telescope historian and has been a member of Custer for over 15 years. Suggested Donation: \$10 Members, \$13 Non-Members, \$5 Full-Time Students.

ON-GOING: Every Sat. evening, from dusk until midnight, Custer is open to the general public. Staff provide guided tours of the sky (weather permitting) via laser pointers and powerful telescopes, and are more than happy to answer questions. Group visits by classes, scouts, and others are welcome (contact CusterDonna@yahoo.com to arrange). The facilities are also available for private functions.

BENEFITS OF MEMBERSHIP

The Custer Institute is a 501(c)(3) N.Y. State educational nonprofit that operates exclusively on public support (proceeds from events, dues, and small donations); it has no endowment. It is staffed by volunteers dedicated to advancing Custer's educational and research goals, and its service to the community. In addition to the reward of supporting a unique organization such as Custer, Members also enjoy the following: Email subscription to our newsletter, library privileges; discounts on classes, lectures, and other events; invitations to members-only events; voting privileges; access to the facilities; special training programs; opportunity to become an Observatory Staff Member. Annual Dues: \$45 Individual; \$60 Family; \$25 Senior/Student; \$100 Sponsor; \$500 Patron; \$1000 Corp. Sponsor.