



Vatican
Observatory
F o u n d a t i o n

Official Press Kit



About

The Vatican Observatory is one of the oldest active astronomical observatories in the world, with its roots going back to 1582 and the Gregorian reform of the calendar. Promulgated by Pope Gregory XIII, the Gregorian Calendar was developed from astronomical observations and data. Used to determine the dates of holy days such as Easter, the Gregorian Calendar marks the Church's continuous engagement with astronomy and its related scientific fields.

The Vatican Observatory stands at the forefront of scientific research covering a broad range of topics, from an examination of the tiniest specks of interplanetary dust to the origin and structure of the universe.

Headquartered at the papal summer residence in Castel Gandolfo, outside Rome, this official work of the Vatican City State supports a dozen priests and brothers (Jesuits and diocesan) from four continents who study the universe utilizing modern scientific methods.

The Vatican Observatory works with the Vatican Observatory Foundation to promote education and public engagement in astronomy, and constructive dialogue in the area of faith and science.

Impact

For 400 years, the Vatican has been advancing scientific inquiry and promoting awareness of how our universe works. Here are a few examples of our contribution throughout the centuries.

Astronomy



Unique among large observatories, the Vatican Observatory has specialized in long-term survey projects from the 19th-20th century Map of the Heavens to modern catalogs of galaxies, open clusters, and peculiar stars. For the Map of the Heavens, which was the first photographic atlas of the stars, project head Rev. Hagan recruited a group of nuns from the Sisters of the Holy Child Mary to assist with the necessary recordings and calculations.



Technology



With the Vatican Advanced Technology Telescope (VATT) and its state of the art CCD cameras, the Observatory has pioneered new ways of building large telescopes. The VATT was completed in 1993 by the Vatican Observatory Research Group and is located at Mount Graham near Safford Arizona. The primary mirror of the VATT was the first ever made using the rotating furnace technology developed by the Mirror Lab at the University of Arizona, which has gone on to revolutionize the creation of large, lightweight, telescope mirrors. The computer-controlled aiming and focusing of the VATT with its gear-free direct drive motors allow the telescope to track objects with less than an arc second of error. With the implementation of remote observing at the VATT, observers need not be physically present on the mountaintop to control the telescope and operate its cameras. Instruments at the VATT include a super-sensitive thinned back-illuminated CCD camera; a medium dispersion spectrograph; and a special high-speed camera capable of taking up to 400 images per second.

Physics and planetary sciences

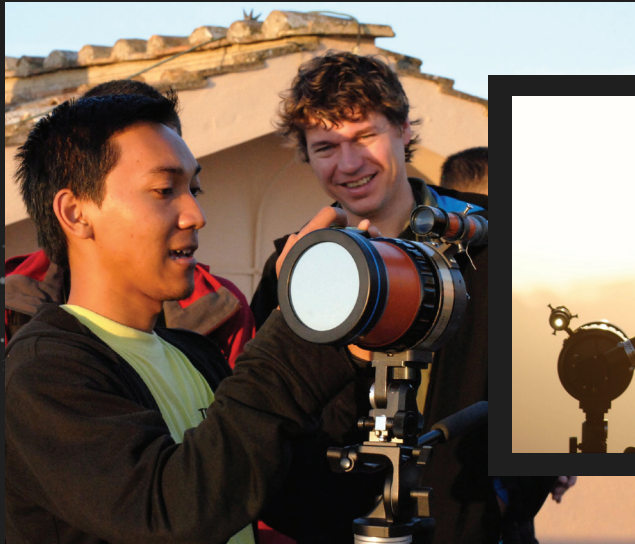


Observatory scientists study a range of related sciences such as quantum gravity; meteorites and Moon rocks; and possible life on planets orbiting other stars. To match the famous Hubble Space Telescope survey of distant galaxies, Vatican astronomers helped produce a similar catalog of nearby galaxies. It has also set up three sky camera systems to record bright bolides and faint meteors entering Earth's atmosphere over Tucson and Rome.

Education

The Vatican Observatory Summer Schools (VOSS) and Astronomy for Catholic Ministers and Educators (ACME) workshops are just two examples of our commitment to education, from K-12 to postgraduate students in the developing world. Women have accounted for almost half of the astronomy graduate students to participate in VOSS since its inception. ACME workshops bring parish priests and educators from K-12 Catholic schools for an immersion into the world of astronomy in Tucson and a workshop on how to teach science in the setting of Catholic schools and parish-

es. A good citizen in the local Tucson community, the Vatican Observatory Foundation sponsors science fair awards for students in Southern Arizona. And, since their arrival in Tucson in the 1980s, Vatican astronomers have taught a series of astronomy courses both for undergraduates and graduate students in the Astronomy Department of the University of Arizona. Vatican astronomers are regular speakers, both in person and online, to high school science and religion classes in North America, Europe, Africa, and India.



Culture and History



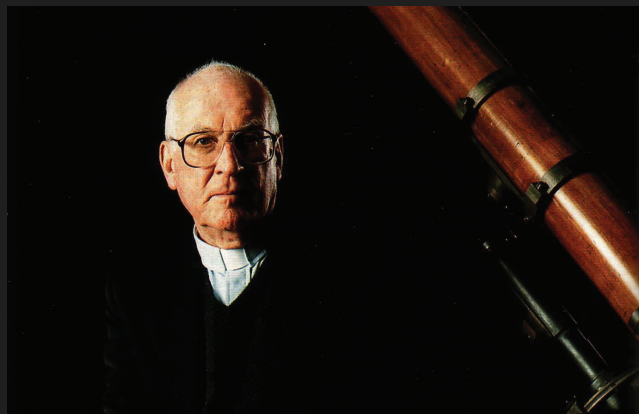
Christopher Clavius

The 1582 Gregorian Calendar, biographies of notable Catholic scientists, and workshops on the peaceful uses of space all show the Observatory's active role in the larger society and the Church. With the move of the Observatory from Rome to Castel Gandolfo in 1935, a large library was set up including historical astronomical books, some dating from the 16th century. This library has served as a vital resource for many historians and scientists. The international role of the Vatican Observatory has included a number of important roles in the International Astronomical Union and co-hosting with the United Nations Office of Outer Space Affairs a workshop on the peaceful uses of space.

Notable Collaborators

Rev. George Coyne, S.J.

Director of the Vatican Observatory from 1978 until 2006, Coyne was also the head of the observatory's research group at the University of Arizona for the same period. Coyne was steadfast in his dedication to reconciling Catholic theology with modern science. He criticized those who maintained a literal interpretation of the Bible and a fundamentalist approach to the Catholic faith. In life and legacy, Coyne's one of the most widely recognized and accomplished astrophysicists. He was also an active member of the International Astronomical Union, the American Astronomical Society, the Astronomical Society of the Pacific, the American Physical Society and the Optical Society of America as well as a founder of the International Center for Relativistic Astrophysics.



Rev. George Coyne, S.J.

D.K.J. O'Connell

In 1960, O'Connell captured the first color photograph of the elusive "green flash" atmospheric phenomenon while observing the sunset from the Vatican Observatory.

Rev. Michael Heller

Professor of philosophy at the Pontifical University of John Paul II in Krakow, Poland, Heller is an adjunct member of the Vatican Observatory. In 2008, Heller was awarded the Templeton Prize for his achievement in philosophy and theoretical physics. With the prize money, Heller established the Copernicus Center for Interdisciplinary Studies.

Featured Staff



Br. Guy Consolmagno, S.J.

Director, Vatican Observatory
President, Vatican Observatory Foundation

B.S Planetary Science - MIT
M.S Planetary Science - MIT
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Rev. Paul R. Mueller, S.J.

Administrative Vice Director,
Vatican Observatory
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M.A. Philosophy - Loyola University
B.S. Physics - Boston University
M.Div Divinity - Berkeley
S.T.M Sacred Theology - Berkeley



Rev. Paul Gabor, S.J.

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M.Sc. Particle Physics - Charles University
M. Sc. Astrophysics - Universite Paris VI
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**Rev. Christopher J.
Corbally, S.J.**

President, National Committee
of the International Astronomical
Union, Vatican City State

B.S Physics - Bristol University
M.S Astronomy - University of
Sussex
Ph. D Astronomy - University of
Toronto



**S.E.R. Mons. Fernando
Vérgez Alzaga, L.C.**

Secretary General, Governatorate of
Vatican City State

Press Contact

Journalists with questions about any aspect of our Observatory and its work are welcome to contact us.

You are free to arrange an interview directly with any member of the staff for interviews by telephone or email.

If you wish to do a more formal interview, on site, please note the following:



U.S.

Travel to the Vatican Advanced Technology Telescope on Mt. Graham is difficult and requires advance notice.

Upon request we can provide high resolution images and professionally produced video of the site which journalists would be free to use.

All reporters wishing to conduct interviews or do filming at the VATT or any other telescope affiliated with the University of Arizona, or at the Richard Caris Mirror Lab, or on campus at the offices of Steward Observatory, should contact Cathi Duncan at Steward Observatory:

Cathi Duncan

Email: cduncanf@arizona.edu
Phone Number: +1 520 621 1320

For any other press or media related inquiries, feel free to reach out at:

Email: info@vaticanobservatory.org
Phone Number: +1 520 795 1694



Vatican City

All reporters conducting interviews in Castel Gandolfo need to have written permission from the Vatican before they can take any sort of pictures, film, or other media recording on Papal territory.

Contact us at staff@specola.va and prepare a document to send the Vatican (see Press Office to the right) with:

- The title and brief description of the program
- The names of all of those who will be on the filming crew
- The date and time of the shoot
- The purpose of the interview
- Who will be interviewed
- How long it will take
- How the material will be used

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