



VATICAN OBSERVATORY
FOUNDATION

2014 ANNUAL REPORT OF GIVING



President's Report

When I took over the reins of the Foundation from Fr. DiUlio in September, I asked myself a fundamental question about the Vatican Observatory, where I have worked for the past 20 years, and its Foundation, which I was now joining: What can we offer the public that no other group of astronomers can offer? What is it that we are uniquely positioned to do?

The Vatican Observatory has Jesuit astronomers. Young Jesuit astronomers. That's pretty special. And it has a very good telescope in a fantastic site. But best of all, I realized, the Observatory has a Foundation, a tool where the public and the Jesuit astronomers can reach each other and share our common desire to know God through His creation. How can we at the Foundation use these unique gifts to fulfill our mission of showing the world that the Church supports astronomy; to create and share the joy of the work we do; and to set up a sustainable way of keeping the telescope, and the foundation, alive into the future?

First... we can use the Jesuit connection to connect to Jesuit schools. We've already started this, with two Jesuit high schools in California and this year we have added St. Louis University High to the group. In addition, we have made contacts with several other Jesuit schools in the midwest and in January we began participating in the Jesuit Virtual Learning Academy.

Second, we can use the connections and credibility we have as a Catholic institution to connect up with parishes and their clubs and organizations. The first step in this program is the Faith and Astronomy Workshop which we held in January. We hope this will become an annual event.

Finally, we can provide a place where individuals can come to learn about astronomy in a church-friendly setting. The Foundation is the place where the Observatory directly engages with American Catholics. When I tell other people about the work I do in astronomy, it makes me realize all over again how blessed I am to be an astronomer, and a Jesuit. The supporters of the Foundation whom I get to visit remind me of what an incredible life I have been given: to share with them the work that ultimately lifts us up into an intimate union with God's creation, a union that is in so many ways identical to prayer.

Br. Guy Consolmagno
President

Our Mission

The Vatican Observatory has a double-edged mission: scientific research into the knowledge of the universe, including our place in it, and the education of the public based upon the knowledge derived from that research. These two driving forces of our mission are very much intertwined. In 1987, the Vatican Observatory Foundation was established as a tax-exempt corporation to support this mission.

RESEARCH. In the early 1990s the marvels of technology and the commitment of a few visionary philanthropists made possible the creation of the Vatican Advanced Technology Telescope (VATT), which empowered scientists to look with more acute "eyes" into the universe. Today, the VATT continues to provide stunning access to the heavens for researchers from around the globe. Combined with other technologies and the continued commitment of Vatican Observatory scientists, our work is literally pushing the boundaries of what we know and how we know it. Joining in this research are many students of astronomy from around the world.

EDUCATION. Each year members of the Observatory staff share their expertise by making educational presentations on the average to over 5,000 persons from 90 educational, religious, and academic groups. In recent times Vatican Observatory scientists have played an increasingly important role in the dialogue between science and faith.

Board of Directors

- Br. Guy Consolmagno, S.J. | President, Vatican Observatory Foundation
- Rev. Jose Gabriel Funes, S.J. | Director, Vatican Observatory
- Mr. Richard Friedrich | Chairman
- Rev. Christopher Corbally, S.J. | Secretary
- Rev. Paval Gabor, S.J. | Vice Director, Vatican Observatory
- Rev. Paul Mueller, S.J. | Superior, Jesuit Community of the Vatican Observatory
- Ms. Karen Dalby
- Ms. Nancy Lebofsky
- Mr. Roger Gamache
- Dr. June Scobee Rodgers
- Mr. Anthony Wittman

Chairman's Report

We recently celebrated the feast of the Epiphany. As described in the Gospel of Matthew the Magi follow a star that leads them to the Christ child, but they were more than just astronomers driven onward by a celestial event. Pope Benedict XVI, in his book "Jesus of Nazareth: The Infancy Narratives," states that the Magi were "wise" and

They represent the inner dynamic of religion toward self-transcendence, which involves a search for truth, a search for the true God and hence "philosophy" in the original sense of the word. Wisdom, then, serves to purify the message of "science": the rationality of that message does not remain at the level of intellectual knowledge, but seeks understanding in its fullness, and so raises reason to its loftiest possibilities.

The Vatican Observatory is one of the few institutions where science and religion meet in constructive dialogue. I found myself in awe of the work of the Vatican Observatory when I first learned of the group fifteen years ago. The study of the universe by men of faith is fascinating on multiple levels, and I am honored to help guide the non-profit Vatican Observatory Foundation created to support it.

The Vatican Observatory Foundation was established in 1987 at the urging of Pope John Paul II in order to fund construction of the Vatican Advanced Technology Telescope to conduct leading edge research as well as to support education. The mission remains the same today and is made all the more relevant in a time when many misleadingly assert that religion and science are incompatible. In my view, the Vatican Observatory Foundation is a fascinating partnership between the Catholic Church, dedicated scientists, and benefactors who welcome research of the heavens. Our Board of Directors is committed to enhancing this partnership and I am happy to present these pages to illustrate the important work taking place in the US and throughout the world.

In 2014 the Vatican Observatory achieved unique milestones in outreach to lovers of wisdom, young and old. We have expanded the number of new donors/supporters by 20%, our media exposure has doubled, and our Facebook interest has climbed from several hundred hits to almost 3000. We thank you for being a part of this journey. On behalf of the Board of Directors, I offer my profound gratitude to all who support the Vatican Observatory Foundation. Your support is paramount to the long-term viability of this vital endeavor. In these pages I hope you find insight, inspiration, and perhaps the same sense of awe I experienced the first time I met these Jesuit scientists over a decade ago.

Rich Friedrich
Chairman

Fr. Andrew Whitman

It is with great sorrow that we announce the passing of Fr. Andrew Whitman, S.J., on January 7th in Grand Coteau, Louisiana. He was 88 years old, a Jesuit for 63 years and a priest for 51 years.

Father Andy was a brilliant mathematician who spent many years in Tucson working with the Vatican Observatory Research Group. He had been a mathematics professor at a number of universities, most notably for fifteen years at the Pontificia Universidade Católica of Rio de Janeiro, before joining the Observatory full time in 1996 as both a research mathematician and administrator. His wit and enthusiasm graced our community until 2010, when ill health required him to return to his province. In 2011, Pope Benedict XVI awarded him the Holy Cross Pro Ecclesia et Pontifice.

One of Andy's areas of passionate interest was a faith community of lay and religious mathematicians, the Clavius Group, which he co-founded in 1963. In 2003, Andy wrote, "...if this does not seem too exaggerated, my mathematics that I do is a prayer. One faces naked and beautiful truth when he does mathematics. One cannot win in this game by banging the table, or claiming the wisdom of old age, or pretending. Either your logic works and can be acknowledged by others, or it does not. And when it does, say after a proof that carries through several pages, you are in the presence of the Divine."



THANK YOU *to our generous benefactors*

Michael and Maxine A'Hearn
Joseph P. Aini, Jr.
Carlos Altamirano
Martin Andrade Jr
Ar-Hale Family Foundation
Andrey and Karin Aristov
Derrick Baird
Barbara Bannan, M.D.
Forrest Bannan
Jerry and Sheila Bannan
John Baross
Joseph and Marianne Bassi
Richard Doane Bates, Jr.
Elmer and Katherine Batts
James Joseph Benz
Louis Berman
Douglas M. and Elda Bielanski
Patrick Anthony Birk
Juliana Boerio-Goates and
Steven R. Goates
Ronald H. Bohr
Gary G. Braun
David Brinegar
Kathleen Brown
William and Marianne Brown
Vern Joseph Brownell
Jacqueline Brunetti
Ruth Marie Burlas
Barbara Blair Busch
Richard O. and A. Kathleen
Cabla
Michael Carlisle
Robert C. Carlos
William Michael Carroll
Pedro Cartaya
Joy Junca Casademont
Mark Chambers
Matthew Chaterdon
Ms. Susan M. Cianflone
Lynn Cintron
Ernest J. and Barbara Cismowski
Jim and Meredith Clarage
Nick Claveau
Prescott Astronomy Club
Gerald and Eileen Colapinto
Kenneth S. Coleman
College of Charleston
Rose C. Collins
Thomas F. Collins
Fernando Comeron
Joseph and Patricia
Consolmagno
Paul D. Cook
John R. Costantino
William R. Cranham
Michael A. and Deborah Cronin
Charles L. Currie, S.J.
Ben and Karen Dalby
David L. Danneker
David Dawson
Alba De Leon
Sam and Ann DeFrancesco
John and Susan Delano
Domenico and Clemencia Delli
Carpini
Susan Delonis
Nikolay Denev
Anthony Mason Densmore
Gregory M. DeSaye
Guy and Gisela Di Spigno
Elizabeth Anne DiPippo
William R. DiPippo

Arte Divine
George E. Dobs
Gustaf and Patricia Drews
Andrea Dudek
Debora Durkin
Jason Edwards
Bethany Louise Ehlmann
Ed and Frances Ehrhart
Ade Eitner
Kathy M. Eldridge
George P. Engeler
Benedictine Sisters of Eric
Donald Erwin
Gilbert and Joy Facio
John P. P. Fallon
Nancy Louise Feeman
Michael N. Figueroa
Maria Finney
Kay Fitzpatrick
Thomas A. Flowers
Ahmanson Foundation
Stephen and Mary Birch
Foundation
James M. and Michelle A. Fraser
Roger and Patricia Frey
Richard and Debora Friedrich
William Fruchterman
Bob and Claire Gadbois
Paolo Galaverni
Luis G. Garcia
Luis G. Garcia Iturrino
Donald and Maureen Gardner
Karen Gardner
Timothy Shawn Gehlmann
Richard S. and Kathy Genthe
John M. Goebelbecker
Stephen and Bernadette Graff
Robert Michael Greene
John Gregorich
Fr. James T. Gregory
Sheila Grinell and Thomas E.
Johnson
Toni Bannan Gross
Barbara J. Gutt
Gary and Debra Gutt
John and Janet Haas
Alec and Kimberley Habig
Virginia Haddad
Patrick C. Harbour
Hazel Hare
Amelie Harris
Pete Hasbrook
Dennis Francis Hayes
Mary Beth Hayes-Zatko
Suzanne Hayward Harris
Michael David Hazard
John J. Hickey
John M. Hill
Joseph Hiist
Christopher and Martha
Hitchcock
Michael Hogan
Rev. William Holtzinger
Carolyn B. Houghton
William Max and Julie Ivey
Mary Louise Jackowicz
Felipe and Karen Jacome
Stephen J. Jenkins
Jesuit Community of the Vatican
Observatory
Kurt Just
Rev. Felix Just, S.J.

Helen Karn
Anne Kelley
John C. Kemper
William and Jean Keppel
Mukhlis G. Khamo
Hollis and Susan King
Kathy Kleidermacher
The KLM Foundation
Ronald and Barbara Knill
Henry and Diana Knoepfle
Richard Koelsch
Roxanne Korman
Charles Gerard Kosanke
Sarah Knaz
JoAnne Krolak
James Ritley Kurzynski
Madeline Labriola
Charles J. Lada
John and Maureen De Lair
Raymond T. Lamanna
Robert P. LaMarr
Joseph and Anne Lamb
Drew Lamkin and Mary
Rannestad
Albert and Vita Lamperti
Alan G Landvay
Salvador Lascano
Sydney and Gloria Leach
Larry and Nancy Lebofsky
James Michael Lee
The Fred A. Lennon Charitable
Trust
Drs. Michael and Stacey Lent
Julian Beng Kim Leow
Rod Letchford
Edwin and Susanne Lindgren
Connie Rose Looft
Liz Lubrani
Arnis Ludborz
Jonathan Lunine
Pamela Madden
Patrick Joseph Madden
Michael and Jean Maiuri
Marla Wittenman Malcolm
Nathan Mamo, S.T.L.
Robert Manley
Frank Martin
Rev. Timothy Martinez
Ian Maxfield
Greg and Linda Maxon
James F. Mc Manus, Jr.
Cardinal Theodore E. McCarrick
Joseph and Karen McCaughey
Simon and Michelle McLroy
Robert and Jean McMichael
Lawrence and Mary Ann
McNamee
Mark Alan McNeil
Ronald Meyer
Kenneth and Karen Miller
Mia Mochizuki
Michela F. Montalto
Sara M. Monti
Peter and Tess Moore
Jim Morley
Hubert Morris
Michael Charles Mueck
Billie Mullen
Thomas Mulligan
William Joseph Mullin
William and Barbara Murphy
Anne Navach

Claire and Michael Noland
Edward and Irene Norey
Jack O'Connell
Sharron L. O'Connor
Joseph and Martha O'Donnell
David M. O'Leary
Edward Luther Oleen
Mark and Lori Orvek
Richard and Sue Orzepowski
The Pacific Western Foundation
Thomas J. Paprocki
Joan Payden
Wayne William Peternel
Robert and Amy Peterson
West Pharmaceuticals
Christopher Pinné, S.J.
Christine A. Pitt
Conrad Plimpton
Michael and Marian Plott
Larry Polisky
Charles P. Poole, Jr.
Raymond J. Preski
Mike and Katy Presnell
Jonathan Protz
Kevin Quirk
Travis E. Rankin
J. J. and Eileen Reed
Stephen and Sue Reel
Robert Regelin
Paul and Lois Reiling
Michael and Jennifer Reilly
Steve and Susan Reischl
Donald and Dorothy Rempe
James and Jean Renn
Bernard L. Richards
Jane B. Richardson
Robertta Roads
June Scobee Rodgers and Don
Rodgers
Patrick and Marian Roohan
John C. Rooney
David L. Roop
Kenneth and Micki Rose
Ursula Rudolf
Cliff H. Running
David Rusconi
David Saint-Jacques
Ronald W. Sams
Eric Sanders
Santa Clara University
Jessica Satori
Timothy James Sauppé
Erhard Johannes Schauer
Ronald C. Schnatzmeyer
Thomas Schneck
Terry Seidler
Corinne Shaw
Prof. Glenn R. Showalter, M.Ed.
Sisters of St. Ursula
Byron R. Skinner
Nance Slattery
Elizabeth Smerak
McLaurin Smith
Michael G. Smith
Robin and Connie Smith
Maria Rosa Smits
Pamela Moore Snyder
Arthur N. Sollee, Jr. and Lea
P. Black
Tom and Molly Sones
Dale W. Staysniak
Jacqueline K. Stefko



The VOF has made every effort to ensure that all information is correct. If any errors or omissions are noted, we offer our apologies and ask that you notify us.

Robert and Graziella Zinn

On-Going Educational Efforts



Rome's Gregorian University Students with their Professor, Fr. Paul Mueller



Brother Guy presents at Santa Clara University for the Bannan Institute lecture series: "What Good is God?"



Brother Guy teaches a Physics class at Catholic University in Washington D.C.

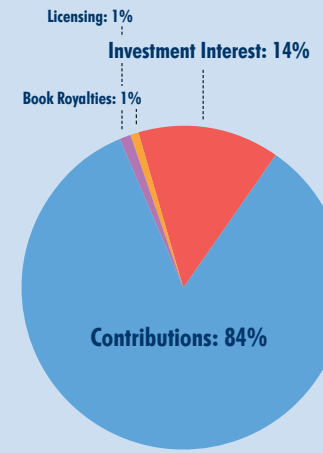


Brother Guy signing copies of the book he wrote with Fr. Paul Mueller in Long Island

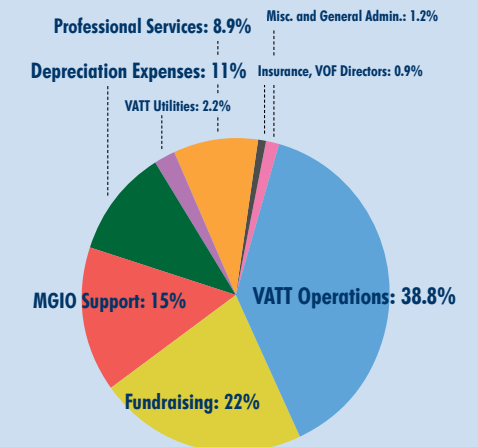


St. Ignatius Preparatory students in San Francisco discuss Faith and Science with Brother Guy

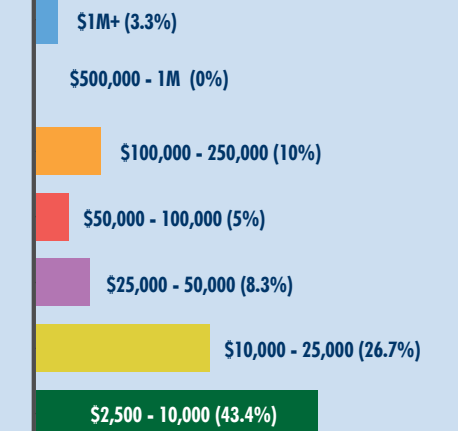
Income: \$548,650.00



Expenses: \$830,511.00



Lifetime Giving of 2014 Benefactors \$2,500 or more



Development Report

In February the 2014 Circles of Giving Awards Celebration returned to Tucson attended by many longtime friends, quite a few new friends and colleagues of the observatory. An unprecedented 15 individuals and 3 foundations were honored reflecting the amount of generosity shown by so many during the preceding year. Dr. Timothy Swindle, Director of the Lunar and Planetary Laboratory at The University of Arizona, was our keynote speaker, fascinating the audience with tales of asteroids and meteorites. On the previous evening the Director of Steward Observatory, Dr. Buell Jannuzi, kindly hosted our Annual Seminar with the largest crowd ever, over 150 attendees, demonstrating how successful our efforts to increase interest in the Vatican Observatory has been.

2014 was again a year of transition. Many friends and colleagues gathered in the spring to say farewell to one of the Vatican Observatory's most beloved and brilliant members, Fr. Bill Stoeger. He will certainly be missed. Fr. Albert DiUlio moved on to Chicago to become the Treasurer of the Mid West Province of the Society of Jesus and Br. Guy Consolmagno stepped in as President of the Foundation on September 1st.

Several programs were either "born" or expanded during the year. The new website went live in the beginning of the year and the Catholic Astronomer blog, part of the Sacred Space Monthly Giving program, was created at the end of the year. Within two weeks the blog already had 40 paying subscribers and 5 regular contributors. The educational program reaching out to high school astronomy students continued with two additional schools participating and a plan was developed for the VOF to participate in online courses in 2015. In the fall Br. Guy and Fr. Paul Mueller promoted their new book, *Would You Baptize an Extraterrestrial*, giving both the observatory and the foundation a vast amount of publicity and exposure. From the Library of Congress to the Oklahoma Panhandle Star Party Br. Guy crisscrossed the US along with a two week visit to Australia speaking to all sorts of groups creating

One Specola, One Team, One Dream

The Vatican Observatory, known in Italian as Specola Vaticana, carries out a unique mission in service of the Holy See from its two centers, located at Castel Gandolfo and Tucson. Keeping active these two centers is a real challenge that is possible thanks to the support of the Governorate of the Vatican City State and to the Superiors of the Society of Jesus who are providing qualified men for this work in service of the Holy See. We are also very grateful to benefactors that are helping us to carry out different projects.

This time I would like to mention two projects that are important and perfectly respond to the two-folded mission of the Vatican Observatory: to do good science and to be witnesses of the Church's commitment to dialogue with the sciences.

1) VATT robotization. On 8th March 2014 the Vatican Observatory received a very generous gift from the Papal Foundation for the technological update of the VATT. With this grant we have started the process of "robotizing" the VATT in collaboration with the Steward Observatory of The University of Arizona. In this report we refer the completed and future milestones of this project.

The robotization of the VATT is part of a larger plan for developing a network of advanced telescopes in Arizona, the Arizona Robotic Telescope Network (ARTN). Many new possibilities will open for competitive science at VATT both as a stand-alone telescope and as a part of a new cutting-edge facility. The complexity of working in this context is one of the parameters of the project which may be challenging. Furthermore, VATT continues to operate at this time with no disruptions to the observers while undergoing major upgrades.

2) Renovation of the domes. Due to the increasing number of visitors and our reevaluation of historical heritage of the Observatory, we have started to renew the domes in the Pontifical Gardens of Castel Gandolfo.

The domes are the house of two telescopes, the Carte du Ciel (1891) and the Schmidt (1957), which were advanced technology telescopes at the time. The domes are ideally situated to be to showcase the commitment of the Holy See in contributing to the progress of the scientific knowledge. The projected Visitor Center will offer the younger generations a different perspective from the one they get from the media. The historical testimony of the Vatican astronomers tells more

than words that science and faith can complement each other.

On 25 January I had the great opportunity to brief the Holy Father on these and other projects when Father Jozef M. Maj, vice director for administration, and I were received in private audience.

The unique mission of the Vatican Observatory is carried out by one team based in two locations. I like to say that with this team it is easy to be their leader. I am proud of them and to them goes my deep gratitude.

The Vatican Observatory has been trusted to the Jesuits by the Holy See. The Jesuit dream can be expressed by the following Spanish words "en todo amar y servir" (in all things, to love and to serve).

At the Observatory we love our mission, we love to explore the Universe sharing this passion with our colleagues. Astrophysics is a wonderful science and still a very exciting frontier to be at. With our research we hope to serve humanity in asking the deepest human questions about the origin of the Universe and its philosophical and theological implications.

Finally I would like to mention one dream that comes true every two years, the Vatican Observatory Summer Schools. I am especially grateful to those benefactors who with their generous gifts have provided scholarships to financially support the participation of our students.

In June we hosted the 14th Summer School on Galaxies: Near and Far, Young and Old. It was another successful and joyful experience thanks to the great dedication of the faculty and the generous participation of the students

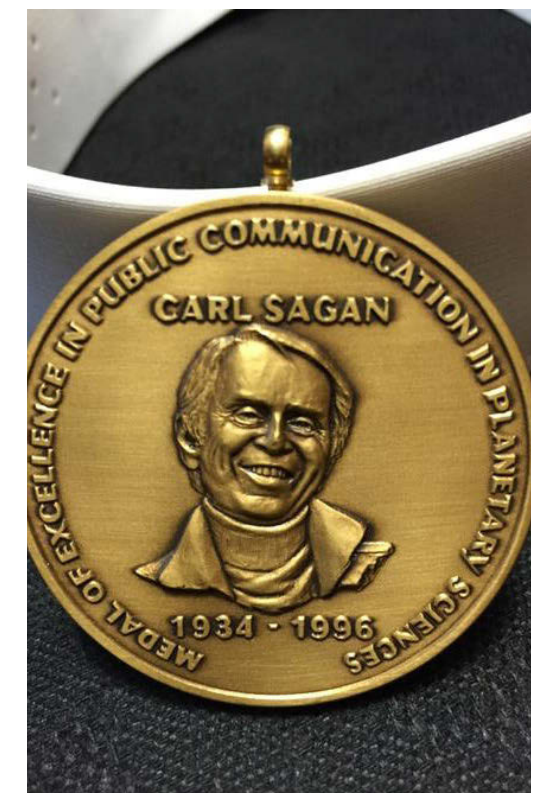
In 1986, the Vatican Observatory organized the first Summer School in Astronomy and Astrophysics, which has become more and more a valuable part of our activities. Since then, this international endeavor now has come to number 362 alumni hailing from 64 countries. This initiative from the Observatory is like the mustard seed from the Gospel parables and how it grows from something small. We give thanks to God for the growth which has exceeded our best expectations and to the Holy See for its support throughout these years.

José G. Funes, S.J.
Director, Vatican Observatory

more interest in the Church and its astronomers while promoting the VOF.

The technological advances being implemented at the VATT assure years of excellent scientific research, better use of the available observing time and more collaborative efforts with local, national and international projects. None of this could be possible without funding. With one very generous and unexpected gift in memory of a loved one who was fascinated by the Universe, several grants from foundations who believe in the stability and validity of our mission, and the support of so many friends 2014 can certainly be considered a successful year. With the advances on the telescope, enhanced educational programs and increased exposure the Vatican Observatory Foundation's future looks very bright.

Katie Bannan Steinke
Development Director



The Sagan Medal awarded to Br. Guy



VATICAN OBSERVATORY
FOUNDATION

2017 East Lee Street
Tucson, Arizona 85719

NON PROFIT ORG
U.S POSTAGE
PAID
TUCSON, AZ
PERMIT NO. 3341

RETURN SERVICE REQUESTED

Follow the Vatican Observatory
on Twitter @VaticanObserv

Like the Vatican Observatory Foundation
on Facebook

INSIDE ✦ **Annual Report 2014** ✦ *excelling in education, research and development*

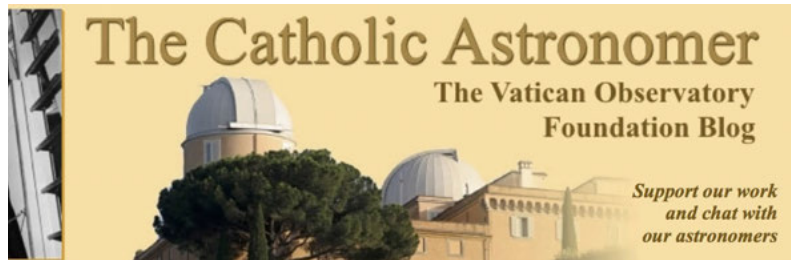


2015: International Year of Light

The United Nations has declared 2015 the International Year of Light to promote global awareness of optics and photonics. From the onset, the IYL project embraces a value of great importance to the entire astronomical community, namely, quality lighting and dark sky protection for our continuing study of cosmic light and access to it. There will be many events and activities throughout the year, building a lasting legacy for years to come.

Arizona's Pi Day kick-off event: Talks, open house, and star party at East Arizona College's Discovery Park Campus in Safford, AZ, on behalf of the three observatories on Mt Graham: Arizona Radio Observatory, Large Binocular Telescope Observatory, Vatican Observatory and Mt. Graham International Observatory.

Have heavenly pie with us on Pi Day, 3.14.15 at 9:26 pm!



The New Catholic Astronomer Blog!

Join the Sacred Space Giving Program! You will have reserved access to the NEW Catholic Astronomer blog, receive a copy of the Sacred Space Prayer Book and, depending on the level you chose, a book from our library, and the possibility of having one of the astronomers connect via Skype with a group of your choice. Giving levels start at only \$10 per month.

An electronic monthly donation drafted directly from your credit card makes giving simple. Find more details at www.vofoundation.org/sacred-space-giving