



# THE INSTITUTE FOR ADVANCED PHYSICS

# The Institute News

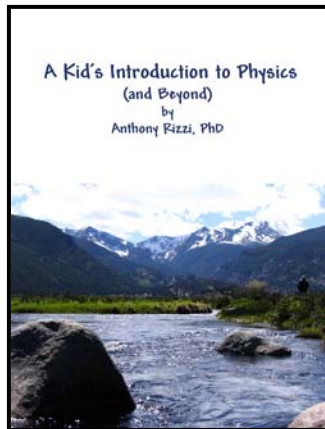
- **New Release: *A Kid's Introduction to Physics (and Beyond)***
- IAP loses a dear friend in Archbishop Hannan
- IAP welcomes new members: S. Strickland, J. Baker
- John Baker on organizing a SBS study group
- Solutions Manual for *Physics for Realists: E&M* now available

## New Release coming this Fall!

The Institute for Advanced Physics announces the publication of:

## A Kid's Introduction to Physics (and Beyond)

"This book is simply written in such a way that kids will enjoy reading it...they will discover how relevant and needed the book is to their understanding of the whole world and our place in it." explains **Connie Firner** a teacher with 34 years experience in public schools and Excellence in Teaching Award recipient



Physicist **Dr. Anthony Rizzi** has completed a new book that shows the simple connection between physics, our everyday world and God: ***A Kids Introduction to Physics (and Beyond)***. This book is an *essential* supplement to your student's or child's science curriculum for 6<sup>th</sup> grade and up.

### ***Why is this book an essential supplement?***

Our culture is losing its mooring, because it is not firmly grounded in the common sense things we learn through the senses. This is the first and only book that introduces kids to science starting with those simple things that they perceive confusedly at a very young age.

Before now, these simple things have not been explained to them in any kind of clear way, because we, their parents and teachers, have never ourselves had them explained to us. Using research published fairly recently in other IAP books, the book explains, again for the first time at this level, what modern science is and how and why it is so important. Lastly, it shows why science (which includes modern science) inevitably leads to God, and how everything we learn about the physical world tells us something new about God. Without this book, children (and adults!) are left with no grounded big-picture view of our world and our place in it. Science can seem relatively unimportant, whereas it is of primary importance.

### ***Who should read this book?***

The book is appropriate for children as young as sixth grade but is targeted for seventh and eighth grade. Kids in higher grades and even adults need and will enjoy it. This book answers the oft heard questions "Why do I need to learn physics?" and "Why do I (Continued on page 2)

(Continued from page 1)  
need to learn math?" in a direct and charming way.

#### **How do I purchase the book?**

*Now available:* The size of the paperback book is child friendly at 6"x8", 70 pages, 14 font. You may purchase it for \$12 plus shipping and handling online at the IAP web site at: <http://www.iapweb.org/store/kids> . If you are a Louisiana resident, PLEASE do not forget to click the appropriate selection to have the proper Louisiana sales tax included.

#### **Who is the author?**

Anthony Rizzi, Ph.D., Director and Founder of the **Institute for Advanced Physics**, gained worldwide recognition in theoretical physics by solving an 80-year old problem in Einstein's theory. Dr. Rizzi has physics degrees from **MIT** and **Princeton University**. He has been senior scientist for The **California Institute of Technology's Laser Interferometer Gravitational-wave Observatory (LIGO)** and taught graduate

courses at LSU. Earlier in his career, he worked on the Manned Mars Craft and the Mars Observer spacecraft for **Martin Marietta** in Denver (now Lockheed Martin) where he received the NASA Award, as well as, a Martin Marietta New Technology Award.

Dr. Rizzi is author of *The Science Before Science: A Guide to Thinking in the 21<sup>st</sup> Century* which has achieved a Barnes & Noble Booksellers online sales ranking of 155 and was the focus of a mini-series produced by EWTN with co-hosts Dr. Rizzi and **Marcus Grodi**. Dr. Rizzi has appeared on EWTN, *radio talk shows*, in *Science* magazine, and many other media. In addition to his professional articles, Dr. Rizzi recently authored the ground breaking college texts *Physics for Realists-Mechanics* (recommended by the journal of the American Association of Physics Teachers) and *Physics for Realists-Electricity and Magnetism*.

**Free** mini-conference at LSU (Baton Rouge, LA)

### **A Kid's Introduction to Physics (and Beyond)**

*for the general public, especially teachers, homeschool teachers and teens*

*featuring speakers Dr. Anthony Rizzi and Fr. Neal Nichols*

*Friday, July 27th 3:00-5:15pmCT*

For more information, contact us at [info@iapweb.org](mailto:info@iapweb.org)

The Institute for Advanced Physics is powered by the combined labors, talent and inspiration of **over 80 people!!!** We extend our **SINCERE GRATITUDE** to the following **VOLUNTEERS:** **Stephen Gaines** and **Tim Glasgow** of **Bryan Cave law firm**, Colorado **Terri Hoopes**, CPA of Colorado and **Jeff Higgins** at **Plante & Moran**, Michigan.

Our thanks and deep appreciation to **Mrs. Carol Rossini** of Denver, Colorado for donating math and physics books from her husband's library. *Requiescat in pace*

*Physica ad Dei Gloriam*

## Institute for Advanced Physics Loses a Dear Friend



*Congratulations on your work [IAP]... Archbishop Hannan*

**We are sad** to announce the passing of **Archbishop Philip M. Hannan** of New Orleans, on September 29, 2011 at the age of 98. Archbishop Hannan, an IAP advisory board member, who was a strong supporter of the Institute for Advanced Physics since its inception in 2003, is remembered as a World War II paratroop chaplain who befriended and secretly counseled **John F. Kennedy**. Dr. Rizzi recalls one occasion when Archbishop Hannan was in contact with the **Vatican** on the IAP's behalf and he stayed up until around 3:00am in the morning to make a telephone call to the

Vatican official. Archbishop Hannan was a true fighter for Truth. *May Archbishop Hannan and all the souls of the faithful departed rest in peace. Amen*

## Stephen Strickland, New Certified Member

**Stephen Strickland** is a third year graduate student at **North Carolina State University** with a Graduate Fellowship. He received his B.S. in Physics and Mathematics with a minor in Computer Science and an emphasis in Computational Science from **Wofford College** in 2010 under the mentorship of IAP Certified Member **Dr. Daniel W. Welch**. While an undergraduate, he worked an internship at **NASA's Jet Propulsion Laboratory** analyzing



data from the Mars Reconnaissance Orbiter and worked on other projects including Magneto Optical Imaging of current vortex pinning sites in Superconductors. He served as President of the newly revived Wofford Society of

Physics Students, and he was a teaching assistant for the advanced physics laboratory.

Stephen works in the non-linear dynamics research group where he studies instabilities in thin fluid films. His present research project examines fluid instabilities in the system composed of fluorescent lipid surfactant films

atop water Faraday waves by imaging both the water wave profile and the surfactant's fluorescent signal.

Stephen's research interests include surface physics, granular physics (particularly temperature and temperature like measures), statistical mechanics, colloidal suspension flows, Bose-Einstein and Fermi-Dirac condensates, and other related fields of condensed matter. In addition to being a growing practical Catholic, Stephen's personal interests include music composition and performance, chess, and self-defense. Stephen is an Eagle Scout.

Stephen is excited about learning more from IAP's textbooks and journals and contributing to the research and educational work of IAP.

*The Institute for Advanced Physics presents its  
10<sup>th</sup> annual conference*

### **Physics for Realists IX**

**Modern Physics with a  
Common Sense Grounding**

**Vol. III Quantum Mechanics**

A conference for IAP members

**July 25 - July 28, 2012**

**Louisiana State University**

Baton Rouge, LA

## John Baker, New Associate Member

John Baker studied the philosophy of St. Thomas Aquinas and Aristotle at Thomas



Aquinas College, CA, the University of Dallas (B.A.) and Mount St. Mary's University (M.A.).

John studied for a few years in the seminary; he also worked as a high school teacher and in information technology.

John is a long-time student of the writings

of Fr. Benedict Ashley, IAP Adjunct Faculty for 9 years. He first learned of the IAP while reading sections of Fr. Ashley's autobiography where Fr. Ashley writes, "For the future I place great hope in the work of the Institute for Advanced Physics..."

In the membership course, John learned many things he did not even know that he did not know, as is the case with all of our members. He looks forward to learning Newtonian mechanics in a fully physical way found only in the *Physics for Realists* textbook and helping IAP get its information out to laymen.

## Organizing a Science Before Science Study Group

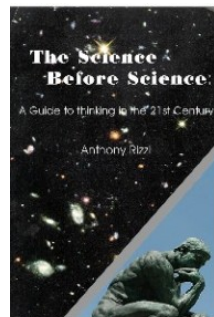
by John Baker, Associate Member

The early chapters of Dr. Rizzi's *The Science Before Science: A Guide to Thinking in the 21<sup>st</sup> Century* (SBS) (available on Amazon and the IAP web site store) provide important insights into the nature of man. At first glance, however, it may not be obvious to the faithful that a book with such a title can be of any assistance to their life of faith. Such impressions can be corrected by making an explicit connection to a parish initiative or current topic of interest in the culture.

Last autumn I connected the early chapters of SBS to a request by my pastor that the parishioners meditate on the question Jesus put to his disciples: "Who do you say that I am?" Christians, of course, believe that Jesus is true God and true man. Such a confessional statement presupposes, at some level, an answer to the question, what is man? Before Peter knew Jesus as God, he knew him as a man. I presented a seminar directed toward giving an introductory, philosophical understanding of the nature of man to encourage meditation on this crucial question in one's own life.

For both beginners and studious Catholics, this SBS seminar was pivotal in addressing the question of man's nature and its relation to faith on such a foundational and clear way. At the conclusion of the five-part seminar several people organized to continue reading SBS. While it may seem like there is never enough time to sufficiently cover a book that is "really about everything," we can help our fellow parishioners make a good beginning.

Please contact me ([info@iapweb.org](mailto:info@iapweb.org)) if you would like help in getting a study group started in your parish.



To order *The Science Before Science* book visit [Amazon](http://Amazon.com) or [iapweb.org/store](http://iapweb.org/store). You may also order *The Science Before Science* in a five part series on DVD from the EWTN Religious Catalogue for your family or school featuring Dr. Rizzi and Marcus Grodi as well as animations, experiments with children and a music video.

The **Solutions Manual** for *Physics for Realists: Electricity and Magnetism (Vol. II)* is now available for \$40 plus s/h. Physics professors may purchase it at the IAP store: <http://www.iapweb.org/store/>