

# Bright Horizons<sup>8</sup>

W. MEDITERRANEAN



October 28 – November 6th, 2010

[www.InSightCruises.com/SciAm8](http://www.InSightCruises.com/SciAm8)



Cruise prices start at \$969, per person. For those attending our seminars, there is a \$1,375 fee. Taxes and other fees are \$270 pp.

For more info contact Neil at 650-787-5665 or [neil@InSightCruises.com](mailto:neil@InSightCruises.com)

Listed is a sampling of the 18 sessions you can participate in while we're at sea. For a full listing visit [www.InSightCruises.com/SciAm8-talks](http://www.InSightCruises.com/SciAm8-talks)

SEEK OUT UNCHARTED TERRITORY AND REVISIT CLASSIC SCIENCE in a Western Mediterranean whirl on Bright Horizons 8. Join a cadre of experts who share critical traits — juggling the pragmatic and the possible, driven to challenge the status quo. Foster your need to know. Explore Iberia, where science went mainstream in medieval times. Venture into Casablanca with a companion, and chart the geometry of North Africa.

Gravitate to a new understanding of magnetism's role in terrestrial and scientific exploration. Absorb the cultural importance of space exploration and implications of our new comprehension of space and time. Ponder nature's preference for matter over antimatter, and the superlatives of CERN's Large Hadron Collider. Practice mind over matter thinking about the structure and function of the brain. Unfold the story behind the science with cutting edge knowledge.

Set a course beyond the obvious and gain insights and new angles into space exploration, neuroscience, particle physics, and magnetism. Join the Bright Horizons 8 community on October 28 – November 6, 2010. Plan now to share tapas with a friend, explore a Moroccan kasbah, and advance your science agenda. Get the details at [InSightCruises.com/SciAm-8](http://InSightCruises.com/SciAm-8) or call Neil at 650-787-5665.



**A Tour of the Universe: Astronomy's Three Kingdoms** — Our view of the universe has evolved over the last century, from a static anthropocentric cosmos a few thousand light years across to a dynamically evolving universe spanning billions of light years. We've discovered cosmic objects like pulsars, quasars, and black holes. Travel with Dr. Dick through billions of light years of space and time as we explore the discovery and classification of objects in astronomy's three kingdoms: the planets, the stars, and the galaxies. **Speaker: Steven Dick, Ph.D.**

**Cosmic Evolution and Human Destiny** — We now see the universe in the context of 13.7 billion years of cosmic evolution. What are the implications of this understanding of space and time in the short and long term? How does it affect our religions and philosophies? What is the long-term destiny of humans? Join us in a journey through science fiction, science fact, and scientific extrapolation as we ponder human destiny in a new context. **Speaker: Steven Dick, Ph.D.**

**Billions of Magnets for Billions of People: How and Why** — When the magnet shape barrier was shattered in 1950, the technology that serves our modern lives could emerge. Tune in and learn about the small, powerful rare-earth magnets that power countless gadgets and one of the greatest modern scientific miracles — magnetic recording. **Speaker: Michael Coey, Ph.D.**

**The Large Hadron Collider: the World's Most Complex Machine** — The LHC is a machine of superlatives — a triumph of human ingenuity, possibly the most complex machine ever built. James Gillies traces particle physics technologies from the invention of particle accelerators in the 1920s to today, and then focuses on the LHC itself. You'll get a perspective on how these tools have allowed us to make phenomenal progress in understanding the Universe, and how they have revolutionized our everyday lives. **Speaker: James Gillies, Ph.D.**

**Cellular and Molecular Organization of the Central Nervous System** — In this session we will focus on the structure of individual neurons and on how, in the central nervous system, they are believed to be connected to each other by an estimated 100 trillion synapses. This understanding of the structure of individual neurons and on how they communicate with each other allows us to have insight into disorders as diverse as depression and MS. **Speaker: Jeanette J. Norden, Ph.D.**

**What the Ancients Knew** — The mysterious behavior of lodestones — rocks naturally magnetized by lightning strikes — and their strange love for iron was known in ancient China, Greece, Sumer, and Mesoamerica. The directional property was used first for geomancy and then, a millennium later, for navigation. The great voyages of discovery of Africa by the Chinese and America by the Europeans all depended on the compass. The ancients dreamt of levitation and perpetual motion. So do we. **Speaker: Michael Coey, Ph.D.**

SCIENTIFIC AMERICAN TRAVEL

## Private, Insider's Tour of CERN

**October 25, 10am–4pm** — From the tiniest constituents of matter to the immensity of the cosmos, discover the wonders of science and technology at CERN. Join Bright Horizons for a private pre-cruise, custom, full-day tour of this iconic facility.

Whether you lean toward concept or application there's much to pique your curiosity. Discover the excitement of fundamental research and get a behind-the-scenes, insider's look of the world's largest particle physics laboratory.

This trip is limited to 50 people. For questions and hotel pricing, please contact Neil or Theresa, or give us a call at (650) 787-5667.

Our full day will be led by a CERN official and physicist. We'll have an orientation; visit an accelerator and experiment; get a sense of the mechanics of the large hadron collider (LHC); make a refueling stop for lunch in the Globe of Science and Innovation; and have time to peruse exhibits and media on the history of CERN and the nature of its work.

To take advantage of this unrivaled insider access to CERN, rendezvous on October 25, 2010 in Geneva, Switzerland. The additional price is \$175 and includes

- Entrance to CERN
- Lunch at CERN
- A round-trip transfer from our Geneva hotel to CERN
- And then on October 27, the transfer from our Geneva hotel to Savona, Italy.