

Aspen Institute Italia Award 2017
A study on black holes and galaxy formation wins

Wind from the black hole accretion disk driving a molecular outflow in an active galaxy. This is the title of the project that has been declared winner of the second edition (2017) of the [Aspen Institute Italia Award](#) for scientific research and collaboration between Italy and the United States. The research project was *Nature's* cover story on March 26, 2015.¹

By crossing data received from two different space telescopes, the authors demonstrate that wind coming from black holes contributes to the formation of new stars inside different galaxies. In particular, they prove that the evolution of galaxies depends on the black holes at their center. This research project continues a long line of scientific results – begun by Bruno Rossi and Riccardo Giacconi (2002 Nobel Prize in Physics) – from Italians and Americans who have collaborated in X-ray astrophysics.

The study was undertaken by the following six researchers:

- 1) **Francesco Tombesi**
Researcher and Assistant Professor of Astrophysics
University of Rome Tor Vergata - Rome - Italy;
Astrophysicist, X-ray Astrophysics Laboratory
NASA - Goddard Space Flight Center - Greenbelt, MD - USA;
Assistant Research Scientist, Department of Astronomy
University of Maryland - College Park, MD - USA
- 2) **Marcio B. Meléndez Hernández**
Research Scientist - Department of Astronomy
University of Maryland - College Park, MD - USA
- 3) **Sylvain Veilleux**
Professor of Astronomy and Joint Space Science Institute (JSI) Fellow
University of Maryland - College Park, MD - USA
- 4) **James N. Reeves**
Research Scientist - Center for Space Science and Technology
University of Maryland - College Park, MD - USA;
Astrophysics Group, School of Physical and Geographical Sciences
Keele University - United Kingdom
- 5) **Eduardo González Alfonso**
Professor - Department of Physics and Mathematics
University of Alcalá - Spain
- 6) **Christopher S. Reynolds**
Professor of Astronomy and Joint Space Science Institute (JSI) Fellow
University of Maryland - College Park, MD - USA

THE AWARD

The *Aspen Institute Italia Award* for scientific research and collaboration between Italy and the United States was launched in December 2015 in keeping with the Institute's commitment to

¹ <http://www.nature.com/nature/journal/v519/n7544/full/nature14261.html>

encouraging and developing international leadership and transatlantic relations. Every year, the prize will be awarded to a research project studying applied or theoretical natural sciences, in which scientists and/or organizations from Italy and the US collaborate.

The Prize consolidates the Institute's commitment towards initiatives and meetings on important topics in the fields of science and technological innovation, with particular reference to their relevance to Italy. The Jury comprises Aspen Italia Chairman Giulio Tremonti (chair), Luciano Maiani, Professor Emeritus of Theoretical Physics at Rome's La Sapienza University, and Lucio Stanca, Vice Chairman of Aspen Institute Italia and former Minister for Innovation and Technology.

In 2016, the Award was given to *Spatiotemporal spread of the 2014 outbreak of Ebola virus disease in Liberia* which created a mathematical model to interpret the spread of Ebola.