

**PRESS RELEASE  
WINNERS ANNOUNCED  
2005/1425H KING FAISAL INTERNATIONAL PRIZE  
FOR  
SCIENCE**

**Topic: PHYSICS**

**Riyadh, 30 Dhu Al-Qa'dah - 11 January 2005**, HRH Prince Khalid Al-Faisal, Director of King Faisal Foundation, tonight announced the winners of the King Faisal International Prize.

The prize for Science (Physics) has been awarded jointly to:

**Professors Federico Capasso (USA)  
Frank Wilczek (USA)  
and  
Anton Zeilinger (Austria)**

Professor Capasso of Harvard University is one of the most creative and influential physicists in the world having achieved international recognition through his design and demonstration of the Quantum Cascade Laser. This revolutionary approach, perhaps the most important development in laser physics during the last decade, signifies an imaginative breakthrough in this field enabling a remarkable contribution of excellent solid-state science and laser physics with new solid-state technology.

Professor Wilczek, a broadly accomplished and creative theoretical physicist, at MIT, has made a whole host of important contributions to several arenas. The most important of these has been the elucidation of Quantum Chromo dynamics as the correct model for the Strong Force, one of the four known forces in nature. This masterpiece, alongside his other seminal achievements, elevates him to the ranks of the world's most prominent scientists.

With contributions ranging from epistemological and foundational research to the forefront of modern quantum technology, Professor Anton Zeilinger of the University of Vienna, has served and advanced mankind in both the cultural and technological domains. His impressive body of work includes that of applying the laws of quantum mechanics for the teleportation of the properties of a particle, heralded as a scientific milestone. In addition to this, he has successfully identified Quantum

Cryptography as the only current method guaranteeing the confidentiality of a transmitted message as governed by natural laws.