

## **Establishing a Centre of Excellence in Mathematics and Theoretical Physics in Palestine and how the PEACE Program can contribute**

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The idea of establishing a Centre of Excellence in Mathematics and Theoretical Physics in Palestine came to life in 2004 with the aim of building scientific capacity that can contribute to reconstruction and development in Palestine. This Center will serve as a focal point for research, training, knowledge sharing and technology transfer and enhance the quality of Mathematics and Physics teaching and research at Palestinian universities. It will facilitate cooperation with universities and research centers in different parts of the world and provide two-way mobility opportunities for Palestinian scientists to go abroad and international scientists to visit Palestine.

Mathematics and Theoretical Physics are two closely related fields of basic science that are vital for every modern society, especially one that cannot rely on natural resources. Technology cannot flourish without basic science and we need to have a scientific community whose size can overcome the criticality barrier in order to be scientifically productive. The vision is that the Centre will have a first rate training program for graduate students in Mathematics and Theoretical Physics up to the PhD level. When in full operation, it will have 20 professors (some permanently), 20 postdoctoral fellows, 10-20 MSc students and 5-10 PhD students. The Centre will promote research in Mathematics and Theoretical Physics in Palestine and the region and it will serve as a funding agency, providing grants to qualified researchers in Palestine.

The partners in this project are

- Birzeit University, Birzeit, Palestine.
- University of Augsburg, Augsburg, Germany (represented by Prof. Ulrich Eckern).
- Trinity University, San Antonio, Texas, USA (represented by Prof. Saber N. Elaydi).
- Université Paris-Sud 11, Orsay, France (represented by Prof. Annick Suzor-Weiner)
- The PEACE Programme

The estimated cost of this Center is as follows:

- Land: (~ US \$ 3 million), to be donated by Birzeit University.
- Capital investments including buildings, library, computers: (~ US \$ 9 million).
- Annual running costs: (~ US \$ 5 million, when the Centre is in full operation).

The UNESCO Chair in Mathematics and Theoretical Physics at Birzeit University has been established as of September 1, 2007 as a first step in supporting the establishment of

the Centre. The Chair will lay the ground for the establishment of the scientific traditions associated with such a centre (seminars, conferences, research, exchange visits, capacity building), build contacts with scientists and administrations of Palestinian universities as well as contacts with local politicians and Palestinian ministries. A Preparatory Workshop is planned for May 2008 to discuss the funding aspects and the scientific objectives of the Centre. The current partners and potential supporters and donors will be invited to this workshop.

The PEACE Program can help in capacity building and academic exchange (postgraduate students and researchers from Palestine going to PEACE partner universities, reciprocal visits to the Centre). On another level, it can help in establishing contacts with regional and international prospective donors to obtain the necessary funding for the Centre.