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**Conference: Recent Advances in Function Related Operator Theory**

This proposal is to request funding for partial support of a conference on recent advances in function-related operator theory. The conference will be held at Rincon, Puerto Rico, March 22 to 26, 2010.

This conference can be considered a sequel to the following conferences that were all partially supported by the NSF:

- Recent advances in operator-related function theory, Dublin, Ireland, 2004.
- Recent advances in operator-related function theory, Madrid, Spain, 2005.
- Extremal problems in complex and real analysis, Moscow, Russia, 2007.
- Recent advances in operator-related function theory, Chapel Hill, North Carolina, 2008.

These conferences were all very successful. In particular, they were well attended by international groups of researchers representing from 20 to 36 countries all over the world, and there was a great deal of collaboration and publication stemming from them. The format of the proposed conference will encourage interaction among the participants, so the organizers expect that a number of joint projects will result from this one as well.

**Intellectual Merit**

The main goal of the conference is to increase awareness and enhance interaction and collaboration between individual mathematicians as well as various groups working in different but overlapping areas of operator theory and applications.

The total number of participants is expected to be between 50 and 80. They will represent 15-20 countries from all continents. A number of distinguished experts have already expressed their interest in delivering invited addresses.

**Broader Impact**

The conference is supposed to have a significant educational component. The invited lectures are supposed to be accessible to an audience which includes advanced graduate students. The Organizing Committee is trying to attract a large and internationally diverse group of young participants including graduate students.

The Proceedings of the Conference are intended to be published.