SECOND ANNOUNCEMENT

TWENTY-SECOND HOLIDAY MATHEMATICS SYMPOSIUM NEW MEXICO STATE UNIVERSITY

Between 1963 and 1976, and resuming in 1988, the Department of Mathematical Sciences at New Mexico State University has held a series of annual symposia during the winter recess.

This year the series continues with

EDWARD GREEN AND DEREK HOLT

speaking on

REWRITING TECHNIQUES AND NONCOMMUTATIVE GRÖBNER BASES

January 3–7, 1997

The Symposium will focus on certain techniques from computational algebra and theoretical computer science, with applications to the theory of associative algebras and computational group theory. The centerpiece of the program is a series of five one–hour lectures each by Edward Green, Virginia Polytechnic Institute, and Derek Holt, University of Warwick.

The theory of Gröbner bases for noncommutative rings has its beginning in the late 1970's, and has developed techniques and algorithms similar to those for string rewriting systems in computational group theory, a somewhat older subject. Recently, important applications of noncommutative Gröbner bases to problems in commutative algebra have been discovered. The purpose of this lecture series is twofold. Firstly, it is intended to give an exposition of the subject, accessible to graduate students and researchers from both areas alike. Secondly, it is intended to further the understanding of the connections between the theory of noncommutative Gröbner bases and that of rewriting systems in group theory. Both lecturers will place special emphasis on these connections, and the conference will give researchers from both fields the opportunity to interact. The lectures are supplemented by a computer laboratory and informal discussion sessions. Participants can demonstrate software they have developed. In addition, we invite participants to present their research in a contributed paper session which will focus on related issues and applications. Please submit a title and abstract by December 1.

While Las Cruces has an airport that is served by Mesa Airlines, a commuter airline, the most convenient airport to fly into is El Paso, TX, which is served by most major airlines. We will provide shuttle service to and from the El Paso airport. Please inform us of your arrival and departure times, if you have not already done so. Note that the Symposium will end immediately prior to the AMS/MAA Joint Meetings in San Diego. The first lecture will take place on Friday, January 3, 9:00 am, and the last lecture will end on Tuesday, January 7, at 2:00 pm. This gives those participants going on to San Diego the opportunity to catch a late afternoon or early evening flight. Southwest Airlines provides convenient service to and from the West Coast as well as some destinations in the Midwest and the East Coast.

We have negotiated a special conference rate of $ 54 per room (up to 3 people) at the Las Cruces Hilton. In order to obtain this rate you need to identify yourself as a participant of the Holiday Symposium and make your reservation by December 2. You can either call their toll free number 1-800-445-8667, or the Las Cruces Hilton directly at 1-505-522-4300.

A detailed description of the lectures and further information can be found at the web site http://www.math.nmsu.edu/ . A set of detailed lecture notes will be available around the beginning of December.

Las Cruces is located at the intersection of Interstate highways 10 and 25 in the sunny climate of the Mesilla Valley, some 40 miles north of El Paso, Texas, and Juarez, Mexico. It is a particularly attractive place to be when so much of the nation suffers from the effects of winter.

We are able to provide partial financial support to a portion of participants. Graduate students, women and minorities are especially encouraged to apply.

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