## Special Volume on

## Orthogonal Polynomials: Numerical and Symbolic Algorithms

This special volume of ETNA contains the Proceedings of the *Bi-annual International Workshop on Orthogonal Polynomials: Numerical and Symbolic Algorithms* held from June 29–July 2, 1998 at the University Carlos III de Madrid in Leganés, Spain. There were 72 participants, 47 from Spain and 25 from other countries who engaged in productive discussions throughout the meeting. There were 6 two-hours invited lectures

- 1. Walter Gautschi, Orthogonal Polynomials and Quadrature and Rational Gauss-type Quadrature Rules
- 2. Gene Golub, Bounds for the Entries of Matrix Functions with Applications to Preconditioning and Inverting Shape From Moments
- 3. Wolfram Koepf, Software for the Algorithmic Work with Orthogonal Polynomials and Special Functions
- 4. Yvon Maday, The Basic spectral element and mortar element methods for elliptic problems and The spectral element methods for resolution of the Stokes and Navier—Stokes problems
- 5. Marko Petkovsek, Linear Operators and Compatible Polynomial Bases
- 6. Doron Zeilberger, The Unreasonable Power of Orthogonal Polynomials in Combinatorics I and II

In addition to the invited lectures, there were 24 half-hour communications given by María Alvarez de Morales, Manuel Bello, Andrei B. Bogatyrev, Francisco Cala Rodríguez, Daniela Calvetti, Cecilia Costa, María Victoria Fernández-Muñoz, Erich Fuchs, Esther García Caballero, Peter Kravanja, Stanislaw Lewanowicz, Guillermo López Lagomasino, Pedro López Rodríguez, Miguel Lorente, Juan C. Medem, Lionello Pasquini, Carmen Perea Marco, Lothar Reichel, Paolo E. Ricci, Jorge Ruano, Ahmed Salam, Javier Segura, Hossain O. Yakhlef and Rafael J. Yáñez, and the meeting was concluded with a problem session. The Organizing Committee was: M. Alfaro (Univ. de Zaragoza), R. Álvarez-Nodarse (Secretary) (Univ. de Sevilla), J. Arvesú (Univ. Carlos III), and F. Marcellán (Chairman) (Univ. Carlos III). Each of the papers in this volume was critically refereed.

On behalf of the Organizing Committee we want also to thank some other people who have collaborated with us in the organization of the Meeting. They are Esteban Moro Egido, Antonio Pastor, Niurka Rodríguez Quintero, Enrique San Millán from the Universidad Carlos III, Rafael Yáñez from Universidad de Granada and Alejandro Zarzo from Universidad Politécnica de Madrid. The workshop was sponsored by Departamento de Matemáticas de la Universidad Carlos III de Madrid, Vicerrectorado de Investigación de la Universidad Carlos III de Madrid, INTAS, Comunidad de Madrid (Consejería de Educación y Cultura) and the Ministerio de Educación y Cultura of Spain (DGES) under grant CO97-0007. Finally, we thank Compact and Addlink for helping us with the hardware and software respectively. To all these institutions our most sincere acknowledgement.

Renato Alvarez-Nodarse and Francisco Marcellán (Special Volume Editors)