

FOREWORD

The MATH/CHEM/COMP 2005 Dubrovnik International Course & Conference (MCC 2005) on the Interfaces among Mathematics, Chemistry and Computer Sciences was held from June 20-25, 2005, in Dubrovnik, Croatia, under the joint auspices of the Inter-University Centre, Dubrovnik, Ruđer Bošković Institute, Zagreb, University of Zagreb and University of Split, International Society for Mathematical Chemistry, and International Society for Theoretical Chemical Physics. MCC 2005 was the twentieth in the series of annual meetings we started in 1986, and it attracted 100 participants from 20 countries, a large number of them students and young researchers.

The MCC meetings are traditionally oriented towards discussion of the interplay among mathematics, chemistry and computer sciences, and this continues. However, to keep pace with "hot" subjects and practical needs, we incorporate into our meetings special sessions, which vary from year to year. Two such sessions were offered at MCC 2005: *Session on Proteins* (organized by István Simon) and *Session on Bioinformatics* (organized by Peter F. Stadler). Other sessions covered varied topics like modeling in chemistry (especially of carbon structures) and biology, quantum chemistry, solid state chemistry, spectroscopy, polyhedra and fullerenes, graphs in chemistry, and mathematics and statistics with applications. Having in mind the student population and novices in the field, two courses were also held. These were: *Intrinsically Unstructured Proteins* (by István Simon) and *An Introduction to Non-uniform Random Variate Generation* (by Josef Leydold).

From the very beginning, due care was given to publishing the results presented in Dubrovnik. As a result

twenty-eight MCC Proceedings have been printed up to now in various distinguished scientific journals. Half of them were printed in *Croatica Chemica Acta (CCA)*: Vol. 66, No. 1 (1993); Vol. 67, No. 1 (1994); Vol. 68, No. 1 (1995); Vol. 69, No. 3 (1996); Vol. 70, No. 3 (1997); Vol. 71, No. 3 (1998); Vol. 72, No. 4 (1999); Vol. 73, No. 4 (2000); Vol. 74, No. 2 (2001); Vol. 75, No. 4 (2002); Vol. 76, No. 2 (2003); Vol. 77, No. 3 (2004); Vol. 78, No. 2 (2005); and Vol. 78, No. 4 (2005). Some of the results presented at MCC 2005 are published in this special and refereed issue of *CCA*.

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