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Computational Intelligence Methods for Bioinformatics and Biostatistics

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Revised Selected Papers

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Preface

This volume contains selected contributions delivered at the 8$^{\text{th}}$ International Meeting on Computational Intelligence Methods for Bioinformatics and Biostatistics (CIBB 2011) held in Gargnano del Garda, Palazzo Feltrinelli, during June 30–July 2, 2011.

The CIBB meeting series is organized by the Special Interest Groups on Bioinformatics of the International Neural Networks Society (INNS) to provide a forum open to researchers from different disciplines to present and discuss problems concerning computational techniques in bioinformatics, system biology, and medical informatics with a particular focus on neural networks, machine learning, fuzzy logic, and evolutionary computational methods. From 2004 to 2007, CIBB meetings were held with an increasing number of participants in the format of a special session of bigger conferences, namely, WIRN 2004 in Perugia, WILF 2005 in Crema, FLINS 2006 in Genoa, and WILF 2007 in Camogli. With the great success of the special session at WILF 2007 that included 26 strongly rated papers, we launched the first autonomous CIBB conference starting with the 2008 conference in Vietri.

CIBB 2011 attracted 24 papers submissions from all over the world. A rigorous peer-reviewed selection process was applied to select the papers included in the conference program. This volume collects the best contributions presented at the conference. Moreover, the volume also includes two presentations from keynote speakers.

The success of CIBB 2011 is to be credited to the contribution of many people. Firstly, we would like to thank the organizers of the special sessions for attracting so many good papers that extended the focus of the main topics of CIBB. Second, special thanks are due to the Program Committee members and reviewers for providing high-quality reviews. Last but not least, we would like to thank the keynote speakers and tutorial presenters Nikola Kasabov (Auckland University of Technology, New Zealand), Clelia Di Serio (Vita-Salute San Raffaele University), Elena Marchiori (Radboud University Nijmegen), Francesco Masulli (University of Genua), and Alexandru G. Floares (SAIA, OncoPredict, IOCN, Romania).

Special thanks are also extended to the people of the local Organizing Committee, to Marco Fornili (University of Milan, Italy) and Giuseppe Marano (University of Milan, Italy). We greatly acknowledge Niccolò Bassani (University of Milan, Italy) for his invaluable work in the editing of the final volume.

October 2012

Elia Biganzoli
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Special Guest Message for the 150th Anniversary of Italian Unification

Prof. Jon Garibaldi
University of Nottingham, UK

Dear Colleagues,

I am deeply honoured to be invited to say a few words to recognise and celebrate the 150th anniversary of the establishment of a unified Italy. I express my heartfelt gratitude to my dear friend and colleague Elia Biganzoli for extending this invitation. I regret the fact that of duties I cannot be with you at the CIBB 2011 conference, as I am currently in Taiwan attending another conference.

My family bears the name of the great man who helped bring about the unification of Italy, General Giuseppe Garibaldi. While the mists of time and the paucity of documentary records have prevented us from establishing a definitive genealogy, it has been passed down through our family that we are direct descendants, and that Garibaldi is my Great-Great-Great-Great-Great Uncle! Whether or not this is authentic is not too important, because regardless of ancestry, I feel a direct connection to some of Garibaldi's values and beliefs.

Garibaldi believed that a unified Italy would be stronger, collectively, than a divided one. I believe this has been true in the 150 years to today, I believe it is still true and will continue to be so. While acknowledging that there are stronger elements and weaker elements in any such diverse unification, Garibaldi believed, as I do, that it is the duty of the strong to help those not so fortunate. I urge all Italians to believe in the benefits of a unified Italy.

In the same way that I believe in a unified Italy, I also believe in a unified Europe. I feel that Garibaldi would have approved of a strong European Union working together for all its citizens. As scientists, we achieve more by coming together in conferences such as this, sharing our findings, and collaborating, thereby being an example of the potential that lies in unity. So, on the 150th anniversary of Italian Unification, I wish you all well, have a great conference, and work together to achieve great things!

My warmest regards,

Jon Garibaldi

Organization

The 8th CIBB meeting was a joint operation of the Special Interest Groups on Bioinformatics and Biopattern of INNS and of the Task Force on Neural Networks of the IEEE CIS Technical Committee on Bioinformatics and Bioengineering with the collaboration of the Section of Medical Statistics and Biometry of the University of Milan, Italy, and supported by SAS JMP and Quantide Srl.

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