Report on WCB06:
Workshop on Constraint Based Methods for Bioinformatics

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Bioinformatics is a challenging area of research where every serious contribution can have thousands of positive effects in medicine, agriculture, or industry. Most of the typical problems can be effectively formulated by using declarative languages and constraints. Constraint on finite domains (and on reals) are applied for predicting spatial conformation of polymers, concurrent constraint programming can be used for simulations of biological systems, and finally constraints on strings are employed for the analysis of DNA sequences. The WCB06 workshop was organized with the aim of sharing new theoretical and practical results in the area and to discuss whether there are new challenging problems for the declarative programming and constraint community. The worskhop is the successor of the workshops *Constraints and Bioinformatics/Biocomputing* colocated with CP'97 and CP'98, and of the workshop WCB'05 colocated with ICLP 2005.

The workshop benefited by the excellent invited talk of Francois Fages about *Using temporal logics with constraints to express biological properties of cell processes* and by the presentation of 7 contributed papers ranging from protein folding to system biology, from suffix arrays to supertree construction. The interest of the constraint community on this theme is witnessed by the number of participants (35) although the workshop run in parallel with other extremely interesting workshops.

An extended summary of the workshop will appear as a chapter of the book

"*Trends in Constraint Programming*" edited by Frédéric Benhamou, Narendra Jussien, and Barry O'Sullivan, to be published by Hermes Science. Moreover, a special issue of *Constraints* Journal on the topics of the workshop will be announced in the following weeks.

During the final discussion, we decided to try to colocate the next edition with ICLP06 in Porto, where we hope to meet the Logic Programming community that can give a strong contribute to this research area. Other information, pictures from the workshop, and the proceedings can be found in the workshop web-site `http://www.dimi.uniud.it/dovier/WCB06`.

We conclude by acknowledging the PC members, the external referees, all the participants, and the CP workshop chair Barry O'Sullivan.