COLING-ACL '98

36th Annual Meeting of the
Association for Computational Linguistics

and

17th International Conference on
Computational Linguistics

Proceedings of the Conference

Volume I

August 10-14, 1998
Université de Montréal
Montreal, Quebec, Canada

COLING-ACL '98

36th Annual Meeting of the
Association for Computational Linguistics

and

17th International Conference on
Computational Linguistics

Proceedings of the Conference

Volume I

August 10-14, 1998
Université de Montréal
Montreal, Quebec, Canada

Current ACL members may order copies of this and other ACL-related proceedings from:

Association for Computational Linguistics (ACL)
75 Paterson Street, Suite 9
New Brunswick, NJ 08901 USA
Tel: +1-732-342-9100
Fax: +1-732-873-0014
rasmusse@cs.rutgers.edu

All other orders (from libraries, institutions and other individuals) should be addressed to:

Morgan Kaufmann Publishers
340 Pine Street, 6th Floor
San Francisco, CA 94104 USA
Tel: +1-650-392-2665, ext. 231
Fax: +1-650-982-2665
mkp@mkp.com

Imprimé au Canada
Printed in Canada

COLING-ACL'98 Sponsors

The Organizing Committee of COLING-ACL'98 wishes to thank the following sponsors for their generous support:

Our institutional sponsors

- Université de Montréal – Vice-rectorat à la recherche et à la planification
- Université de Montréal – Faculté des arts et des sciences
- Government of Canada – Department of Industry
- Government of Canada – Social Sciences and Humanities Research Council

Our corporate sponsors

Our patrons

Our supporters

- AT&T Research
- Druide Informatique
- General Electric
- Lexis-Nexis
- Machina Sapiens

Preface: President of the ICCL

The volume attests to the great and growing vigor of our field by its size, the quality of the papers that it contains, and the tireless devotion of the people who put it together. The first International Conference on Computational Linguistics (it was not dubbed "Coling" for another four years) had no proceedings and neither did the earliest meetings of what was then the Association for Machine Translation and Computational Linguistics. In the approximately thirty-five intervening years, we have taken on the full panoply of academic respectability with departments and chairs in major universities, international conferences whose proceedings instantly become indispensible works of reference, workshops, special interest groups, tutorials and so forth. To you who have helped bring us where we are and show every intention of carrying us on to greater heights, I say thank you, and congratulations!

This meeting is the second Coling to be held in Canada, the first having been in 1976, and it is also the second combined International Conference on Computational Linguistics and Annual Meeting of the Association for Computational Linguistics, the first having been in Stanford, California, in 1984. The people who were fortunate enough to attend one or both of those meetings generally look back on them with fondness, and the people that contributed to their organization, with pride. This meeting will eclipse them both, thanks to the devoted efforts of countless people, but most notably Pierre Isabelle and Christian Boitet, and thanks to you, the writers, readers, reviewers, and presenters without whom it would not exist.

Martin Kay

Preface: President of the ACL

This volume may come as a surprise to regular participants of the annual ACL conferences. It is certainly more substantial in its weight and, hopefully, in its contents as well. While the former is chiefly the result of the extremely difficult and time-consuming efforts of the Program Committee, headed by Christian Boitet and Pete Whitelock, the latter derives from the participants themselves. The scientific level of any conference is determined not only by the value of the papers presented and included in the Proceedings, but also — and perhaps more importantly — by the liveliness and substantiveness of the discussions, in the lecture rooms and the corridors, the cafes and the restaurants ...

Be that as it may, I feel confident that most participants will agree that it has been profitable for us to join forces once again (as we did in Stanford in 1984) and to hold a joint meeting of ACL and Coling. This belief is probably not shared at this time by the co-chairs of the PC, and perhaps even less by the conference organizer, Pierre Isabelle, whose life had been enormously complicated over the past year by the job of bringing so many computational linguists together in one place. I would like to express my deepest admiration and gratitude for all the work they have done in organizing this conference. I am convinced that after the fatigue wears off, even they will share with us the feeling of satisfaction and pleasure at having been part of a stimulating, fruitful and friendly meeting.

Eva Hajičová

Preface: Chair of the Organizing Committee

At the time of this writing, the Proceedings are just about to go to press. It is a thrilling moment for our Organizing Committee. All that work of ours was like setting the table for a grand meal. Now we can see that the food has been taken care of, and that it will be extremely abundant and diverse enough to please almost everyone's palate.

Since the inception of the COLING-ACL'98 project more than four years ago, the road has been long and full of surprises. As a case in point, it is interesting to note that while it was understood from the start that COLING-ACL'98 would be staged at the Université de Montréal, we had no idea then that our laboratory would (for independent reasons) become part of that university in the summer of 1997. Naturally, this particular development turned out to facilitate the project in many respects. More often, however, it was rather some unexpected complication that would pop up along the way. Each time, we would be led to wonder what kind of temporary madness had driven us to solicit the dubious privilege of doing all this organizational work.

Now that we can see the Proceedings and the complete scientific programme, we feel that our efforts are in fact being generously rewarded. I am glad we did take up the challenge to organize COLING-ACL'98 and I would like to thank the ICCL and the ACL for granting us their confidence.

However, if either one of these organizations (or worse the two of them together) should ever ask you to organize such a joint conference, my advice is that you should seriously think twice before accepting... You certainly cannot do it alone. One thing you should ask yourself is whether you will be able to get all the help you will need. Without a competent and truly dedicated team you don't stand a chance! Pray that you will be as lucky as I was: for it was truly a privilege to be able to work with such a resourceful and pleasant group as the people listed below.

Lyne Da Sylva	Machina Sapiens
Francis Fauteux	Informatique et recherche opérationnelle, Université de Montréal
Richard Kittredge	Linguistique et traduction, Université de Montréal
Guy Lapalme	Informatique et recherche opérationnelle, Université de Montréal
Marie-Claude L'Homme	Linguistique et traduction, Université de Montréal
Elliott Macklovitch	RALI, Université de Montréal
Alain Polguère	Linguistique et traduction, Université de Montréal
Graham Russell	RALI, Université de Montréal
Michel Simard	RALI, Université de Montréal
Alain Thériault	Linguistique et traduction, Université de Montréal

Pierre Isabelle
29 June 1998

Preface: Programme Committee Co-Chairs

Shortly after COLING'94, when it was decided to accept the proposal to hold COLING'98 in Montreal, Pierre Isabelle suggested to join it with ACL'98. ICCL and ACL agreed very soon and preparations began. It would be the second such joint event, the first having taken place 14 years ago, also in North America, at Stanford.

Since 1984, the NLP community has grown considerably, and a very large participation was expected. Also, the structure of COLINGs and ACL conferences had evolved differently, so that no existing model could be reused. To cut a long story short, it was finally agreed to: (1) set up a programme committee with an ICCL Chair (Christian Boitet, Grenoble) and an ACL Co-chair (Pete Whitelock, Oxford), (2) organize the event in 3 parts, tutorials, conference, and workshops, as in the last ACL/EACL'97 in Madrid, and (3) to assign the main responsibility of the conference part to Grenoble and that of the tutorials and workshops to Oxford.

The answers to the call for tutorial proposals were quite numerous and led to 11 interesting pre-conference tutorials.

The answer to the call for workshops proposal was also very successful, so that we had to extend from 1 to 2 days (Aug. 15 and 16) to accommodate one 2-day workshop and 10 1-day workshops: Very Large Corpora, Content Visualization and Intermedia Representations, Discourse Relations and Discourse Markers, Computational Terminology, Processing of Dependency-based Grammars, Computation of Phonological Constraints, Computational Treatment of Nominals, Translingual Information Management, Usage of WordNet in Natural Language Processing Systems, Computational Approaches to Semitic Languages, and Partially Automated Techniques for Transcribing Naturally Occurring, Continuous Speech.

As far as the conference is concerned, the e-mail submission process led to 640 announcements of submissions. We received 550 full papers, which were reviewed by about 320 reviewers organized in 17 subcommittees. Each paper was evaluated by 3 reviewers and sometimes also by the Subcommittee Chair or one of the Program Chairs. The advice of reviewers was synthesized by the Subcommittee Chairs, with the final evaluation and decision in the hands of the Programme Chairs. We read about 30% of the total submissions in order to resolve borderline cases and ensure consistency between subcommittees. We maintained a distinction between regular papers and project notes, reflecting the completeness of the work described. By restricting project notes in length, we were able to accept a much higher number of papers within the overall constraints of volume size. In the end, 137 regular papers and 96 project notes (33 with demos) were selected. Two regular papers later proposed also separate demos. No criteria other than scientific ones were applied. In particular, we did not try to reach any *a priori* fixed quotas for topics. Our community must be very grateful to all who participated in the review process and invested so much of their time and energy, in particular the subcommittee Chairs.

We also decided to invite 2 eminent researchers, David Sankoff from UdM and Changning Huang from Tsinghua University, to present papers on their on-going research, one at the border between NLP and mathematics, and the other in a very active part of NLP. Two interesting panels were also proposed by Antonio Zampolli and Nicoletta Calzolari.

Some remarks can be made at this point on the heterogeneity of papers relative to proposed topics, the state of our community relative to modern technology, and the blind review aspect of the selection process.

The 17 subcommittees were determined by ICCL and ACL in a fairly classical way, the detailed layout being intended to encourage evenly distributed submissions. Each submission had to indicate one or two topics, in order. It then came quite as a surprise to see that the repartition by first topics was extremely uneven, going from 9 to 107! To assign papers to subcommittees, the PC then

considered the second topics. Even then, only 70% of papers could be assigned to a subcommittee corresponding to one of their two selected topics. The PC had to take the titles and abstracts into consideration in making final assignments, some of which were in line with the topics and some not quite so. The PC therefore asked reviewers to evaluate papers with the whole set of topics in mind, rather than only those listed for their subcommittee. Subcommittee Chairs frequently asked new reviewers to join their subcommittee to evaluate papers outside of their initial domain, and the final result was quite satisfactory. However, a review process of this size is very complex, and the decision to accept or reject papers with contradicting evaluations is a difficult matter. Also, the subjective impression of overall quality of papers by subcommittee Chairs varied considerably. Nevertheless, the overall quality was felt to be quite high, and, with more space available in the programme, the PC would have liked to accept about 80 more papers. (These were actually put in a waiting list; however, almost no accepted paper was retracted).

On the technological aspect: for the first time in the history of COLINGs, it was decided to use e-mail intensively. That was not possible before, as COLING has always been very international and some countries did not have easy access to e-mail, although ACL has used it for a long time now. The same is actually still true of access to the Web. About 90% of those submitting papers understood the guidelines given in the call for papers and sent a correct and complete identification page in plain ASCII as required. The story of the submission proper is different. Paper versions were required, to avoid innumerable problems with formats, fonts, etc., and this was OK. But authors were also invited, again for the first time in the history of COLINGs and the nth time in that of ACLs, to send the same content as postscript or pdf files for backup purposes in case of postal problems during the review process. This led to an enormous workload and much disappointment for the PC, because (1) only 306 out of the 550 final papers were sent as files; (2) only 162 managed to produce correct files, and for 50% of those, only after sending 2 or 3 incorrect versions; (3) about 75% of authors (including some reviewers and subcommittee chairs) did not follow the guidelines and sent files containing the author names and affiliations, or produced files with bad names such as coling.ps or acl98.ps or Smith.ps instead of [#]*idnumber*.ps, or did not include the proper fonts, or included files in messages rather than attaching them. A further remark is that the vast majority of file-related problems came from North America, then Europe, and far behind Asia. In other words, our Asian colleagues did far better than all others, although they have many more problems linked with their writing systems.

Following the example of COLING-96 and ACL'97, the review process was blind. From the Programme Chairs' point of view, this innovation is questionable. First, it led to some of the problems mentioned above. Second, it seems often to miss the point, because authors don't succeed in hiding who they are: even people not knowledgeable in the field can almost always recognize the authors in a matter of seconds by looking at the reference list or scanning the paper for names of systems or formalisms. On the other hand, some papers for which authors were not evident got rejected or almost rejected (if the PC saved them) by reviewers who criticized the lack of reference to or comparison with previous work by the same authors!

In the future, it might prove interesting to abandon the idea of preparing a detailed partition into subcommittees a priori, and to use e-mail for building very quickly a series of subcommittees corresponding as tightly as possible to the submissions received. We also hope that the web will soon be available to all researchers in NLP in all countries, so that it can be used throughout the submission and reviewing process. Finally, we would like ICCL and ACL to study whether blind reviewing should be more strictly enforced, or dropped.

To conclude, we would like to say that this conference, with associated tutorials and workshops, promises to be at least as interesting as the previous ones, and to thank not only the members of the Programme Committee and all reviewers, but also all authors without whom the whole

exercise would have no point, and the Organizing Committee who helped the PC in many ways right from the start. Last but not least, to all participants: please don't forget that, although the written aspect of the conference is very important, direct communication and intense discussion are essential. New ideas often emerge only in such contexts. A third of the time allotted to each presentation should be used for discussions, and all the time between presentations, i.e. exactly 50% of our time in the University of Montreal!

Christian Boitet and Pete Whitelock
19 June 1998

Programme Committee and Reviewers by Subject Area

Morphology and phonology: Lauri Karttunen (chair), Evan Antworth, Susan Armstrong, Kenneth R. Beesley, Steven Bird, Igor Boguslavsky, Key-Sun Choi, Mark Ellison, Dafydd Gibbon, Jan Hajič, Julia Hirschberg, Yang Huizhong, Arvi Hurskainen, George Kiraz, Kimmo Koskenniemi, Mark Liberman, Kazunori Muraki, Kemal Oflazer, Richard Sproat, Bruce Tesar, Dan Tufis.
Syntax and parsing: Aravind Joshi (chair), Anne Abeillé, Steve Abney, Srinivas Bangalore, Tilman Becker, John Carroll, David Carter, Mike Collins, Christy Doran, Christophe Fouqueré, Karin Harbusch, Seth Kulick, Mark Liberman, Mark-Jan Nederhof, Steve Pulman, Owen Rambow, Adwait Ratnaparkhi, Anoop Sarkar, Giorgio Satta, Mark Steedman, Yuka Tateisi, K. Vijayshanker, David Weir.
Semantics, pragmatics, cognition: Eva Hajičová (chair), Nicholas Asher, Peter Bosch, Robin Cooper, Robert Dale, Mary Dalrymple, Elisabet Engdahl, Walther von Hahn, Erhard Hinrichs, Wolfgang Hoeppner, Satoru Ikehara, Ferenc Kiefer, Sadao Kurohashi, Wolfgang Menzel, Elena Paducheva, Jarmila Panevová, Ellen F. Prince, Donia Scott, Petr Sgall, Paul Smolensky, Bonnie Webber.
Discourse and Dialogue: Yorick Wilks (chair), Jens Allwood, Douglas E. Appelt, Gene Ball, Afzal Ballim, Sandra Carberry, Günther Görz, Nancy Green, Susan Haller, Koiti Hasida, Graeme Hirst, Eduard Hovy, Kristiina Jokinen, Ami Kronfeld, Mark T. Maybury, Kathy McCoy, Tony McEnery, Johanna D. Moore, Naoyuki Okada, Nicholas Ostler, Cécile Paris, Massimo Poesio, Stephen Pulman, Allan Ramsay, Ehud Reiter, David Sadek, Akira Shimazu, David R. Traum, Wolfgang Wahlster, Nigel Ward, Janyce Wiebe, Sandra Williams, Ingrid Zukerman.
Corpus processing and empirical methods: Dekai Wu (chair), Susan Armstrong, Eric Brill, Claire Cardie, Eugene Charniak, Hsin-Hsi Chen, Key-Sun Choi, Ido Dagan, Pascale Fung, Kok-Wee Gan, Vasileios Hatzivassiloglou, Kim Teng Lua, Ray Mooney, Eric Ristad, Harold Somers, Ralph Weischedel, Paul Wu, David Yarowsky.
Lexical resources and computational lexicography: Nicoletta Calzolari (chair), Amedeo Cappelli, John Carroll, Gregory Grefenstette, Eduard Hovy, Nancy Ide, Kimmo Koskenniemi, Bente Maegaard, Simonetta Montemagni, Antoine Ogonowski, Martha Palmer, Maria Teresa Pazienza, Vito Pirrelli, James Pustejovsky, Philip Resnik.
Computational paradigms (symbolic, stochastic, neural, hybrid): Hozumi Tanaka (chair), John Carroll, Keh-Jiann Chen, Young S. Han, Hideki Hirakawa, Hidoshi Iida, Asanee Kawtrakul, Surapant Meknavin, Masaaki Nagata, Akitoshi Okumura, Keh-Yih Su, Takenobu Tokunaga.
Languages, tools and environments for lingware development: Rémi Zajac (chair), Jan Amtrup, Steve Beale, Hamish Cunningham, Alex Franz, Robert Gaizauskas, Udo Hahn, Doug Jones, Koiti Hasida, Hans-Ulrich Krieger, Yuji Matsumoto, Jun-Ichi Nakamura, Günter Neumann, Kemal Oflazer, Hiroshi Sano, Jörg Schutze, Tomek Strzalkowski, Leo Wanner.

Form checking (spelling, terminology, grammar, style): Steve Richardson (chair), Arendse Bernth, Lisa Braden-Harder, Jill Burstein, Simon Corston, Deborah Coughlin, William Dolan, George Heidorn, Karen Jensen, Michael Jones, Claudia Leacock, Michael C. McCord, Joseph Pentheroudakis, Yael Ravin, LeeAnn Schwartz, Frédérique Segond, Lucy Vanderwende, Rick Wojcik.
Summarization, abstraction, generation: Winfried Lenders (chair), Stephan Busemann, Tong Loong Cheong, Key-Sun Choi, Gnther Grz, Karin Harbusch, Roland Hausser, Eduard Hovy, Chu-Ren Huang, Tibor Kiss, Gerhard Knorz, Rainer Kuhlen, Inderjeet Mani, Dietmar Rösner, Karen Sparck-Jones, Manfred Stede, Harald Trost.
Text and speech machine translation and translation aids: Jun-Ichi Tsujii (chair), Sophia Ananiadou, Naoya Arakawa, Paul Bennett, Bill Black, Hans-Ulrich Block, Key-Sun Choi, Dominique Estival, Robert Frederking, Zhao-Ming Gao, Young S. Han, Chu-Ren Huang, Dosam Hwang, Hitoshi Iida, Hitoshi Isahara, Alon Lavie, Lori Levin, Jong-Hyeok Lee, Kim-Teng Lua, Yuji Matsumoto, Teruko Mitamura, Masaki Murata, Yoshiki Niwa, Eric Nyberg, Jaeduk Park, Hae-Chang Rim, Jungyun Seo, Harold Somers, Koichi Takeda, Hideki Tanaka, Kiyotaka Uchimoto, Takehito Utsuro, Eric M. Visser, Jin Yang, Akio Yokoo, Zaharin Yusoff, Min Zhang.
Multimodal NLP (speech and dialogue processing, integration of speech, text, gestures): Alex Waibel (chair), Lars Ahrenberg, E. Andre, Veronique Auberge, Gerard Bailly, Meera Blattner, Elizabeth O. Bratt, Jean Caelen, Noelle Carbonell, David N. Chin, Phil Cohen, John Dowding, Laurel Fais, Sakaoki Furui, Marsal Gavalda, Michael Johnston, Hasida Koiti, Akira Kurematsu, John Lafferty, Henry Lieberman, Jean-Francois Mari, Vibhu O. Mittal, Douglas B. Moran, Katashi Nagao, Sharon L. Oviatt, Thomas Polzin, Takenobu Takenaga, Ye-Yi Wang, Monika Woszczyna, Jie Yang.
Text and speech information retrieval and categorization, electronic libraries: Sergei Nirenburg (chair), Jamie Callan, Tomek Strzalkowski, Jim Cowie, Mark Davis, Susan Dumais, Ted Dunning, David Evans, Roger Evans, Fredric C. Gey, Gregory Grefenstette, Alexa McCray, Douglas W. Oard, Boyan Onyshkevych, Jan Pedersen, Ellen Riloff, Scott Waterman.
Large R & D cooperative projects: Antonio Zampolli (chair), Antonietta Alonge, Sophia Ananiadou, Nuria Bel, Paul Buitelaar, Amedeo Cappelli, Maria Gavrilidou, Steven Krauwer, Simonetta Montemagni, Antoine Ogonowski, Fabio Pianesi, Patrick Saint-Dizier, Antonio Sanfilippo.
Validation and testing programmes: Joseph Mariani (chair), Christophe d'Alessandro, Niels Ole Bernsen, Frederic Bimbot, Lou Boves, Jean Caelen, Nick Campbell, Jean-Pierre Chanod, Lin L. Chase, Khalid Choukri, Renato De Mori, Donna Harman, Lynette Hirschman, Christophe Jouis, Candace Kamm, Steven Krauwer, Lori Lamel, Philippe Langlais, Guy Lapalme, Bente Maegaard, Widad Elhad Mustafa, Klaus Netter, Patrick Paroubek, Louis C.W. Pols, Martin Rajman, Paul Sabatier, Laurent Schmitt, Jan P. H. van Santen, Jean Véronis, Rémi Zajac.
Small Scale Innovative Research Projects: Helmut Schnelle (chair), Peter Bosch, Daniel Flickinger, Simon Garrod, Christopher Habel, Megumi Kameyama, Marc Moens, Manfred Pinkal, Ronan G. Reilly, Remko Scha, Petr Sgall.
Others (contributions not falling in above categories): Eric Wehrli (chair), Marc Dymetman, Michael Hess, David Johnson, Andras Kornai, Paola Merlo, Jean-Yves Morin, Martin Rajman, Anne Reboul, Frédérique Segond, Pierre Zweigenbaum.
Additional reviewers: Kudo Ikuo, Alain Lecomte, Christian Rétoré, Noriyoshi Uratani.

Preface: Student Session Co-Chairs

The proceedings of COLING-ACL'98 wouldn't be complete without the extended abstracts of the students presenting their work in four special student sessions. Unlike the regular papers presented in the main session, students were encouraged to present work in progress that includes great ideas for future research.

We received 46 submissions from 12 countries. After thorough consideration, we accepted 12 of the submitted papers (or 26%). Each submission was reviewed by at least two student reviewers and two non-student reviewers.

We want to thank the 43 members of the program committee for being precise and fair in their assesments and for making our lives easier by returning all reviews on time.

The student members of the COLING-ACL 1998 Student Session Program Committee were Houssem Assadi, *EDF-DER, France*; Amit Bagga, *Duke University, USA*; Sarah Boyd, *MRI, Macquarie University, Australia*; Joyce Chai, *Duke University, USA*; Bart de Boer, *Vrije Universiteit Brussel, Belgium*; Christy Doran, *University of Pennsylvania, USA*; Mark Dras, *MRI, Macquarie University, Australia*; Philip Edmonds, *University of Toronto, Canada*; Daqing He, *University of Edinburgh, Scotland, UK*; Pamela Jordan, *University of Pittsburgh, USA*; Esther Klabbers, *Technical University Eindhoven, The Netherlands*; Nobo Komagata, *University of Pennsylvania, USA*; Daniel Loehr, *The MITRE Corporation, USA*; Nuno Marques, *Universidade Nova de Lisboa, Portugal*; Maite Taboada, *Universidad Complutense de Madrid, Spain*; Mariet Theune, *IPO, The Netherlands*; Laura Tomokiyo, *Carnegie Mellon University, USA*; Meltem Turhan, *Middle East Technical University, Turkey*; Jakub Zavrel, *Tilburg University, The Netherlands*.

The following were the non-student members of the committee: Ion Androutsopoulos, *NCSR "Demokritos", Athens, Greece*; Maria Aretoulaki, *University of Erlangen, Germany*; Kim Binsted, *Sony, Japan*; Ido Dagan, *Bar-Ilan University, Israel*; Barbara Di Eugenio, *University of Pittsburgh, USA*; Mark Ellison, *University of Edinburgh, Scotland*; Dominique Estival, *University of Melbourne, Australia*; Eva Hajicova, *Charles University, Czech Republic*; Steve Green, *MRI, Macquarie University, Australia*; Dekang Lin, *University of Manitoba, Canada*; Karen Lochbaum, *US WEST Advanced Technologies, USA*; Mehryar Mohri, *AT&T Labs - Research, USA*; Cecile Paris, *CSIRO, Australia*; Scott Prevost, *FX Palo Alto Laboratory, Inc, USA*; Ehud Reiter, *University of Aberdeen, Scotland*; Ellen Riloff, *University of Utah, USA*; Eric Siegel, *Columbia University, USA*; Harold Somers, *UMIST, Manchester, UK*; Bangalore Srinivas, *AT&T Labs - Research, USA*; Evelyne Tzoukermann, *Bell Labs, USA*; Renata Vieira, *University of Edinburgh, Scotland*; Marilyn Walker, *AT&T Labs - Research, USA*; David Weir, *University of Sussex, UK*; Dekai Wu, *Hong Kong University of Science and Technology, Hong Kong*.

We want to thank last year's organizers: Pamela Jordan, *University of Pittsburgh, USA* and Johan Bos, *University of the Saarland* for their help and for providing us with a large volume of supporting materials that made it possible to handle the organization of this year's Student Session. Finally, we want to thank the organizers of the main conference from ICCL and the ACL Executive Committee, more specifically Pierre Isabelle, Christian Boitet, Pete Whitelock, and Kathy McCoy.

Student Session Co-Chairs:
Maria Milosavljevic, *CSIRO, Australia*
Dragomir R. Radev, *Columbia University, USA*

Table of Contents

Student Papers

Author Index