

ICCS 2001

9th International Conference on Conceptual Structures: Broadening the Base

— Program —

Monday, July 30

Registration at TC Seq

09.00-18.00 **Workshops**

Workshop on Concept Lattice-based theory, methods and tools for Knowledge Discovery in Databases

<http://www.ksl.Stanford.EDU/iccs2001/clkdd2001/>

Room: Gates B12

9.00-9.15 Welcome to participants

9.15-10.15 **Invited Talk:** Association Rules – Past, Present, and Future
Ramakrishnan Srikant (IBM, San José, USA)

10.15-10.40 *Coffee Break*

Theoretical Background and Applications

10.40-11.10 Why Can Concept Lattices Support Knowledge Discovery in Databases?
R. Wille, Germany

11.10-11.40 Structuration of phenotypes/genotypes through Galois lattices and implications
V. Duquenne, France

11.40-12.30 Discussion

12.30-14.00 *Lunch Break*

Algorithms and Implications

14.00-14.25 Algorithms for the Construction of the Set of All Concepts and Their Line Diagram
S. Kuznetsov & S. Ob"ekov, Russia

14.25-14.50 Computing Proper Implications
R. Taouil & Y. Bastide, France

14.50-15.20 Discussion

15.20-15.45 *Coffee Break*

Lattices Compression & Temporal Analysis

15.45-16.10 Building a pruned inheritance lattice structure for relational description
M. Courtine & I. Bournaud, France

16.10-16.35 A Lattice-Based Data Structure for Information Retrieval and Machine Learning
F.J. van der Merwe & D.G. Kourie, South Africa

16.35-17.00 Temporal Concept Analysis
K.E. Wolff, Germany

17.00-17.30 Discussion

General Discussion and Conclusion

17.30-17.50 General Discussion

17.50-18.00 Conclusion

PORT's Workshop on the Semantic Web

<http://www.ksl.Stanford.EDU/iccs2001/SemanticWeb.htm>

Room: TCseq 102

Joint Session with the Semantic Web Mining Workshop SWWS

- 09.00-9:30 Workshop Introduction
09:30-10:30 **Invited Talk:** Title to be announced
Eric Miller (W3C Semantic Web activity leader)
(Room: TCSeq 200)
- 10.30-10.45 *Coffee Break*
- 10.45-12.00 Demos and Discussions with:
Ted Nelson
Doug Engelbart
Tim Lenoir

PORT Tools Demos (Joint Session with the Workshop on Conceptual Graphs Tools)

- 12.30-14.00 Generic Access to CORBA objects using CGs
Arno Puder
CHASID, Content structure modelling and checking in a graph-based
authoring support system
Felix Gatzemeier
Coda - A tool for conceptual data analysis
Uta Priss
RENISYS: supporting the socio-technical system evolution of
critical communities
Aldo de Moor
- 14.00-15.30 Joint Session with the Workshop on Conceptual Graphs Tools
- 19.30 **Panel Discussion:** The Future of KR in the Semantic Web
Panelists: Keith Devlin, Terry Winograd, Geoff Nunberg, and Deborah McGuinness

Workshop on Conceptual Graphs Tools

<http://www.cs.nmsu.edu/~hdp/CGTools>

Room: TCseq 102

Conceptual Graph Tools Demos (Joint Session with the PORT Workshop on the Semantic Web)

- 14.00-14.10 Notio
Finnegan Southey
- 14.10-14.30 CharGer
Harry Delugach
- 14.30-14.50 pCG
David Benn
- 14.50-15.10 CGWorld
Kristina Toutanova, Pavlin Dobrev
- 15.10-15.30 ARCEdit
Heather Pfeiffer

Tuesday, July 31

Registration at TC Seq

Talks at BioT 175 (Herrin Hall)

Logical and Mathematical Foundations of Conceptual Structures

- 09.10-09.20 **Welcome**
- 09.20-10.00 **Invited Talk:** Peirce's Beta Graphs: Ligatures and Lines of Identity
Robert Burch
- 10.00-10.15 Discussion
- 10.15-10.35 Generalized Quantifiers and Conceptual Graphs
Tru H. Cao
- 10.40-11.20 *Coffee Break*
- 11.20-11.40 Formal Concept Analysis Methods for Dynamic Conceptual Graphs
Bernhard Ganter, Sebastian Rudolph
- 11.45-12.05 Relational Constructions on Semiconcept Graphs
Silke Pollandt
- 12.10-12.30 Simple Semiconcept Graphs: A Boolean Logic Approach
Julia Klinger
- 12.35-12.55 Refinement of Conceptual Graphs
Juliette Dibia-Barthélemy, Ollivier Haemmerlé, Stéphane Loiseau
- 13.00-15.00 *Lunch Break*
- 15.00-15.20 Mathematical Support for Empirical Theory Building
Selma Strahringer, Rudolf Wille, Uta Wille
- 15.25-15.45 Many-valued Context Analysis using Descriptions
Ralf Gugisch
- 15.50-16.10 Pattern Structures and Their Projections
Bernhard Ganter, Sergei O. Kuznetsov
- 16.15-16.50 *Coffee Break*

Conceptual Hierarchies

- 16.50-17.10 Building Concept (Galois) Lattices from Parts: Generalizing the Incremental Methods
Petko Valtchev, Rokia Missaoui
- 17.15-17.35 Multi-dimensional Representations of Conceptual Hierarchies
Peter Becker
- 17.40-18.00 Reverse Pivoting in Conceptual Information Systems
Jo Hereth, Gerd Stumme
- 20.00 **Welcome Party**
Gold Room of the Stanford Faculty Club

Wednesday, August 1st

Registration at TC Seq

Talks at BioT 175 (Herrin Hall)

ICCS/DL Joint Session

- 09.00-09.20 Ontology of Integration and integration of ontologies
Diego Calvanese, Giuseppe De Giacomo, Maurizio Lenzerini
- 09.25-09.45 Boolean Judgment Logic
Rudolf Wille
- 09.50-10.10 Concept Graphs and Predicate Logic
Frithjof Dau
- 10.15-10.35 Searching for Objects and Properties with Logical Concept Analysis
Sébastien Ferré, Olivier Ridoux
- 10.40-11.20 *Coffee Break*
- 11.20-11.40 The Generation of DAML+OIL
Ian Horrocks and Peter F. Patel-Schneider
- 11.45-12.05 OilEd: a Reason-able Ontology Editor for the Semantic Web
Sean Bechhofer, Ian Horrocks, Carole Goble, Robert Stevens
- 12.10-12.30 Description of the RACER System and its Applications
Ralf Moeller
- 12.35-12.55 Large-scale cooperatively-built KBs
Philippe Martin, Peter Eklund
- 13.00-15.00 *Lunch Break*

Conceptual Structures and the World Wide Web (Joint Session with DL)

- 15.00-15.20 Extension of RDFS based on the CGs formalism
Alexandre Delteil, Catherine Faron-Zucker, Rose Dieng
- 15.25-15.45 Browsing Semi-structured Web texts using Formal Concept Analysis
Richard Cole, Peter Eklund
- 15.50-16.10 A Web-based Browsing Mechanism Based on Conceptual Structures
M. Kim, P. Compton
- 16.15-16.25 Description Logics Emerge from Ivory Tower
D. L. McGuinness (Position Paper)
- 16.25-17.00 *Coffee Break*

Conceptual Structures and the World Wide Web

- 16.50-17.10 Making Virtual Communities Work: Matching Their Functionalities
Aldo de Moor, Willem-Jan van den Heuvel
- 17.15-17.25 SemTalk: A RDFS Editor for Visio 2000
C. Fillies, F. Weichhardt (Position Paper)
- 20.00 **Conference Banquet**
Gold Room of the Stanford Faculty Club

Thursday, August 2nd

Registration at TC Seq

Talks at BioT 175 (Herrin Hall)

Language and Knowledge Structures

- 09.00-09.20 Aspecto-temporal Data and Lexical Representations in French within Simple Conceptual Graphs on the Basis of Semantico-Cognitive Schemes
Tassadit Amghar, Thierry Charnois, Delphine Battistelli
- 09.25-09.45 Learning to Generate CGs from Domain Specific Sentences
Zhang, Yong Yu
- 09.50-10.10 Word Graphs: The Third Set
C. Hoede, L. Zhang
- 10.15-10.35 Structural Parsing
C. Hoede, L. Zhang
- 10.40-11.20 *Coffee Break*

Languages

- 11.20-11.40 Uses, Improvements and Extensions of Prolog+CG: Case Studies
Adil Kabbaj, Bernard Moulin, Jeremi Gancet, David Nadeau, Olivier Rouleau
- 11.45-12.05 CG-KQML+: An Agent Communication Language and its Use in a Multi-Agent System
K. Bouzouba, B. Moulin, A. Kabbaj
- 12.10-12.30 An Application of the Process Mechanism to a Room Allocation Problem using the pCG Language
David Benn, Dan Corbett
- 12.35-12.55 An Algorithmic Definition of CG Operations Based on a Bootstrap Step
A. Kabbaj, B. Moulin
- 13.00-15.00 *Lunch Break*

Conceptual Modeling and Systems

- 15.00-15.20 Dependency Analysis Using Conceptual Graphs
L. Cox, H. S. Delugach
- 15.25-15.45 A CG Query Engine Based on Relational Power Context Families
B. Groh, P. Eklund
- 15.50-16.10 Authoring Operations Based on Weighted Schemata
F. H. Gatzemeier
- 16.15-16.50 *Coffee Break*
- 16.50-17.10 CGExtract: Towards Extraction of Conceptual Graphs from Controlled English
S. Boytcheva, P. Dobrev, G. Angelova
- 17.15-17.35 Ossa - A Conceptual Modelling System for Virtual Realities
Finnegan Southey, James G. Linders

Position Papers

- 17.40-17.50 The Philosophical Foundation of Conceptual Knowledge: A Sociopragmatic Approach
B. Wyssusek, M. Schwartz, B. Kremberg
- 17.50-18.00 Flexible Concept Lattices
E. Mephu Nguifo
- 18.00-18.10 Process Representation in Temporal Concept Analysis
K. E. Wolff

Friday, August 3rd

Registration at TC Seq

Talks at BioT 175 (Herrin Hall)

Ontology

- 09.00-09.40 **Invited Talk:** Signs, Processes, and Language Games
John F. Sowa
- 09.40-09.50 Discussion
- 09.50-10.10 A Peircean Ontology of Language
Janos Sarbo, Jozsef Farkas
- 10.15-10.35 A Triadic Model of Information Flow
Uta Priss
- 10.40-11.20 *Coffee Break*
- 11.20-11.40 **Invited Talk:** Ontology Standards
Nancy Lawler
- 11.45-12.05 Conceptual Graphs and Metamodeling
Olivier Gerbé, Guy W. Mineau, Rudolf K. Keller
- 12.10-12.30 Conceptual Modeling Systems: Active Knowledge Processes in Conceptual Categories
C. Landauer, K. L. Bellman
- 12.35-12.55 Solving-Oriented and Domain-Oriented Knowledge Structures: Their Application to Debugging Problem Solving Activity
Slim Masmoudi
- 13.00-13.30 Concluding Dissussion

Workshop: Ontology

Room: BioT 175 (Herrin Hall)

- 15.00-16.00 **Panel Discussion:** Requirements for ontology in applications
Panelists: Nancy Lawler (Department of Defense), Mark Musen (Stanford University), Adam Pease (Teknowledge), Livia Polanyi (Fuji-Xerox), Bob Spillers
- 16.00-17.00 **Panel Discussion:** Theoretical issues in ontology design and development
Panelists: Nicola Guarino, Pat Hayes, John McCarthy, John Sowa, Gio Wiederhold
- 17.00-18.00 Open discussion of future directions