CADE-13 Workshop on

Proof Search in Type-Theoretic Languages

Rutgers University, New Brunswick, USA, July 30, 1996

Preliminary Programme

Session I: **Logical Frameworks**

9h00 Adequate encodings of proof systems for algebraic specifications in UTT.
N. Mylonakis (University of Edinburgh, UK).

9h25 Substitutions for Proofs and Types as Logic Programming.
C. Liang (University of Pennsylvania, USA).

9h50 A note on representation and semantics in logical frameworks.
D. Pym (Queen Mary and Westfield College, University of London, UK).

10h15-10h35 Questions and discussion

10h35-10h55 COFFEE BREAK

Session II: **Tools and applications**

10h55 Porgi: a Proof-Or-Refutation Generator for Intuitionistic propositional logic.
A. Stoughton (Kansas State University, USA).

11h20 Classical Tools for Constructive Proof Search.
J.L. Caldwell and J. Underwood (Nasa Research Center, USA - University of Edinburgh, UK).

11h45 A Correct Compiler Construction using COQ.
P. Argón, J. Mullins and O. Roux (LAN-CNRS, Université de Nantes, ECN, France).

12h10-12h30 Questions and discussion

12h30-14h00 LUNCH

Session III: **Principles**

14h00 Reduction to Theories of Lower Order.
G. Mints (Stanford University, USA).

14h25 An algorithm to determine the number of inhabitants of a type.
C.B. Ben-Yelles (IUT Valence, Université Grenoble 2, France).

14h50 Resolution cospans, axiom elimination and fibrations.
J. Otto (McGill University, Canada).

15h15-15h35 Questions and discussion.

15h35 - 15h50: COFFEE BREAK

Session IV: **Linear Logic**

15h50 Linear Higher Order Pre-Unification.
I. Cervesato and F. Pfenning (Carnegie Mellon University, Pittsburgh, USA).

16h15 The Complexity of Local Proof Search in Linear Logic.
P.D. Lincoln, J.C. Mitchell and A. Scedrov (SRI, Stanford University, University of Pennsylvania, USA).

16h40 A Parallel Decision Procedure for ALL.
Ph.G. Bradford and J.Y. Marion (MPI, Saarbrücken, Germany - CRIN-CNRS, Nancy, France).

17h05 Connection methods in Linear Logic fragments and Proof nets construction
D. Galmiche (CRIN-CNRS, UHP Nancy I, France).

17h30 Questions and **final discussion**

18h00 End of the workshop