

2002 ANNUAL CONFERENCE OF THE
AUSTRALASIAN ASSOCIATION FOR LOGIC

CO-SPONSORED BY THE ASSOCIATION FOR SYMBOLIC LOGIC

Canberra, Australia, November 30–December 2, 2002

The 2002 Annual Conference of the Australasian Association for Logic took place in Canberra, Australia on November 30–December 2, 2002. The program comprised a one hour invited talk and 18 contributed talks of 40 minutes length each. The visit of the invited speaker Mariangiola Dezani-Ciancaglini from the University of Torino was made possible by the financial support of the other sponsor of the conference, the Computer Sciences Laboratory of the Australian National University. Participants of the conference came from five countries: the US, Italy, the Netherlands, New Zealand and Australia. The last day of the conference was run in conjunction with the Australasian Workshop on Computational Logic. The aim of bringing the two meetings together for a day was to encourage communication and cooperation between researchers who have different backgrounds but overlapping interests.

Abstracts of the invited and contributed talks that were presented at the conference follow.

Conference Organizer
KATALIN BIMBÓ

Abstract of invited talk

- MARIANGIOLA DEZANI-CIANCAGLINI, *Finitary logical semantics*.
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Stone dualities allow to describe special classes of topological spaces by means of (possibly finitary) partial orders. Typically, these partial orders are given by the topology, a basis for it, or a subbasis for it. The seminal result is the duality between the categories of Stone spaces and that of Boolean algebras (see [4]). Other very important examples are the descriptions of *Scott domains as information systems* [5] and the description of *SFP domains as pre-locales* [1]. Intersection types can be viewed also as a restriction of the domain theory in logical form, see [1], to the special case of modeling pure lambda calculus by means of ω -algebraic complete lattices. Intersection types have been used as a powerful tool both for the analysis and the synthesis of λ -models, see *e.g.*, [2]. On the one hand, intersection type disciplines provide finitary inductive definitions of interpretation of λ -terms in models. On the other hand, they are suggestive for the shape the domain model has to have in order to exhibit certain properties [3].

[1] S. ABRAMSKY, *Domain theory in logical form*, *Annals of Pure and Applied Logic*, vol. 51 (1991), pp. 1–77.