Essence, A Language for Specifying Combinatorial Problems: What, Why and So What?

Alan Frisch
University of York

Essence is a formal language for specifying combinatorial (decision or optimisation) problems at a high level of abstraction. It is the result of our attempt to design a formal language that enables abstract problem specifications that are similar to rigorous specifications that use a mixture of natural language and discrete mathematics, such as those that appear in Garey and Johnson's catalog of NP-complete problems. This talk presents the design of Essence - focusing on its abstraction features - the motivation behind it and why it can be useful to the wider LaSh community.