



Cork Constraint Computation Centre

University College Cork

"Making Hard Choices Easier"



RISCO - Risk Management for Combinatorial Auctions

Project Description

Combinatorial auctions involve the sale of multiple distinguishable items where bidders can bid on combinations of desired items. This allows bidders to express perceived complementarities and substitutabilities between items, thus increasing revenue for the bid-taker and improving efficiency. Revenue-maximizing winner determination is algorithmically challenging. Solution uncertainty, e.g. bid-withdrawal or an incapacitated bidder, can leave the bid-taker exposed to significant revenue losses or supply failures. We have developed a unique algorithmic approach for finding robust solutions of near-optimal revenue that can withstand bid withdrawal to form repair solution easily. We aim to develop a prototype application of this technology for the sourcing/procurement sector.

Project Coordinator

Dr Barry O'Sullivan and Dr Alan Holland



ENTERPRISE
IRELAND

Enterprise Ireland

Proof of Concept Programme

Start Date: 01.10.2005

End Date: 30.09.2006



University College Cork

Computer Science
Department