CONSTRAINT PROGRAMMING AND OPTIMIZATION – A TUTORIAL

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ABSTRACT

Constraint programming is a relatively new approach for solving computationally complex problems. This approach is especially effective for large-scale problems with side conditions. In this presentation modeling and solution approaches of mathematical programming and logic-based methods are briefly compared and contrasted using examples from a number of application areas. An overview of the current state of research in this field will be presented.

COMPUTATIONALLY COMPLEX PROBLEMS AND CONSTRAINT PROGRAMMING

Brute computing power is not an answer to computationally complex problems. In this presentation, after justifying this by a simple example [1], a brief explanation of computational complexity will be presented [2].

Constraint programming is a relatively new approach for solving computationally complex problems [3]. This approach is especially effective for large-scale problems with side conditions. In this presentation modeling and solution approaches of mathematical programming and logic-based methods are briefly compared and contrasted using examples from a number of application areas [4, 5]. An overview of the current state of research in this field will be presented.

REFERENCES

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