Project Description

Constraint programming is the paradigm of choice for solving many real-world combinatorial problems. However, several very important classes of problem have not been addressed. We often need to find a set of solutions that are diverse/similar to each other, to another solution or a set of solutions. Currently we have neither theoretical complexity results nor algorithms for these problems. We propose to construct a catalogue of such problems in the context of constraint programming. We will study their computational complexity, design and implement efficient algorithms for them, and apply them to various domains including Bioinformatics, Coding Theory, and Configuration.

Project Coordinator

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