Group 4: Resolution Search

Members : Philippe Michelon, Carlos Diego Rodriguês, Bertrand Le Cun, Thierry Mautor, Lorena Pradenas, Serigne Gueye, Boris Detienne, Wladimir Tavares, Manoel Campêlo

Minutes of the Group meeting (04/04/13, Fortaleza):
participants : Diego, Bertrand, Lorena and Philippe

The goal of this one hour meeting was to define a working plan for the next 2 years, or at least for the forthcoming six months. This objective was only partially reached since it was decide that an important first step would be to have a basic implementation of Resolution Search for a given problem. It was then decided that Wladimir will implement a basic version of RS for the Maximum Stable Set problem.

Mots of the meeting was a brain storming between the participants. Philippe started the reunion by recalling RS main steps. Bertrand found that the whole method is actually equivalent to consider a family of (partial) search trees, whose roots are the marked elements. We tried to point out the different possibilities for some of the main steps, especially how to initialize the methods. Diego proposed to begin the methods with no-goods which are deduced of valid inequalities not explicitly taken into account in the model. Obviously such an approach is no always possible. Philippe proposed to start with a large family of feasible solutions.

Bertrand found that the choice of the marked element is crucial for the global performance of the methods.

Some discussions on the links of RS with non standard branch-and-bounds were also discussed.