Resource Temporal Networks: Definition and Complexity

Philippe Laborie

the basic ingredients for defining Resource Temporal Networks (RTNs). Informally, an RTN represents a set of possible evolutions of a given numerical variable (the level of the resource) over time.

Definition 3 (Resource Temporal Network) *A resource temporal network (RTN) is a tuple* $(T; A; R; L; G; N$

is in the precondition of operator o, this can be captured by a greater-than condition $G(1; t^0; t)$ with the constraint t

4.2 Finding a solution

Complexity 1 *The problem of finding a solution to an RTN*

Lemma 1 *NTC for* $(R$

problem $_y$ can be transformed into one of the corresponding lemma and thus, its time complexity is polynomial.

Complexity 10 *NTC for* $(R; L; GjSTN$