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AM-13

NP-Completeness of the Description Logic RSV

The description logic *RSV* may be used for representing and solving resource constrained scheduling problems with variant processes. In this paper, three different variants for formalizing the *RSV*-scheduling problem are considered. These are the *optimizing variant*, the *number variant* and the *decision variant* of the *RSV*-problem. With the aid of decision variant we show that the *RSV*-problem is *NP*-complete. Further we expound that the optimizing variant (or number variant) of the RSV-problem is computable in polynomial time if and only if the decision variant is computable in polynomial time.

## 이형천(아주대)

AM-14 Computational methods for optimal control problems of fluid flows

Some optimal control problems for fluid flows are studied such as Navier-Stokes folws and Benard problem. Some computational methods are considered. A projected gradient method for optimality system is studied. Then, a piecewise optimal control of Berand problem is considered. Some computational experoments also will be presented.