

New algorithms for computing the minimal elements of finite families of sets w.r.t. preorder relations

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Abstract

We present new algorithms for computing all minimal elements of a nonempty finite family of sets in a real linear space, with respect to a preorder relation defined on the power set of that space. These algorithms have been developed together with Christian Günther and Elisabeth Köbis (Martin Luther University, Halle-Wittenberg, Germany). They are based on a set-valued counterpart of the well-known Graef-Younes reduction procedure, originally conceived for vector optimization.