Liau, Churn Jung; **Lin, Bertrand I-peng**
Abstract minimality and circumscription. (English) Zbl 0762.03014
Artif. Intell. 54, No. 3, 381-396 (1992).

Summary: We present an alternative approach to the generalization of circumscription. Traditionally, the generalization of circumscription involves the change of ordering among models, while in the present study we only try to generalize the minimality criteria of models. We define the notion of abstractly minimal (or $(\mathbf{P}, \mathbf{Z})$-minimal) models by isomorphism. Under this generalization we come up with the fact that some theories which are unsatisfiable in the original circumscription will be satisfiable now. Moreover, we prove that this generalization is completely coincident with the original circumscription in the case of well-founded theories.

Reviewer: Reviewer (Berlin)

MSC:

03B80	Other applications of logic
68T27	Logic in artificial intelligence

Keywords:

generalization of circumscription; minimality criteria

Full Text: DOI

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