研究室名	上出哲広研究室　論文発表

題名	Reasoning with inconsistency-tolerant fuzzy description logics
掲載雑誌	Proceedings of the 14th International Conference on Agents and Artificial Intelligence (ICAART 2022), Volume 3, pp. 63-74, Science and Technology Publications, 2022.
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概要	An inconsistency-tolerant fuzzy description logic is introduced and a translation from this logic to a standard fuzzy description logic is constructed. A theorem for embedding the proposed inconsistency-tolerant fuzzy description logic into the standard fuzzy description logic is proven via this translation. A relative decidability theorem for the inconsistency-tolerant fuzzy description logic w.r.t. the standard fuzzy description logic is also proven using this embedding theorem. These proposed logic and translation are intended to effectively handle inconsistent fuzzy knowledge bases. By using the translation, the previously developed algorithms and methods for the standard fuzzy description logic can be re-purposed for appropriately handling inconsistent fuzzy knowledge bases that are described by the proposed logic. Furthermore, an inconsistency-tolerant fuzzy temporal next-time description logic is obtained from the inconsistency-tolerant fuzzy description logic by adding a temporal next-time operator. Similar results as those for the inconsistency-tolerant fuzzy description logic are also obtained for this temporal extension.
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