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A unified categorical approach for attributed graph rewriting. (English) [Zbl 1142.68414](#)

Hirsch, Edward A. (ed.) et al., Computer science – theory and applications. Third international computer science symposium in Russia, CSR 2008 Moscow, Russia, June 7–12, 2008. Proceedings. Berlin: Springer (ISBN 978-3-540-79708-1/pbk). Lecture Notes in Computer Science 5010, 398-409 (2008).

Summary: Attributed graphs are often used in software engineering. Mainly algorithms concerning programs and models transformations are based on rewriting techniques. We suggest a unified categorical approach for the description and the verification of such algorithms and programs. This contribution which is a generalization of the double pushout approach can be seen as a mix between pushout and pullback. This will facilitate the computations on attributes within a unified framework. It should be particularly helpful for model to model transformation in the domain of “Model Driven Architecture”.

For the entire collection see [\[Zbl 1136.68005\]](#).

MSC:

[68Q42](#) Grammars and rewriting systems

Software:

[AGG](#)

Full Text: [DOI](#)