

Towards an Operational Semantics for Functional Patterns

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Functional patterns [2] provide a very elegant and concise notation for pattern matching, where multiple distinct patterns can be abbreviated using user-defined operations. Although their semantics is formally defined by means of a program transformation, this transformation can not be applied for their implementation since it may result in programs of an infinite size. Instead, an informal algorithm for functional pattern matching is presented, but its operational semantics is not formally specified. In this work, we try to close this gap by proposing an operational semantics for functional patterns, based on the existing operational semantics for FlatCurry [1].

References

- [1] Elvira Albert, Michael Hanus, Frank Huch, Javier Oliver, and Germán Vidal, *Operational semantics for declarative multi-paradigm languages*, Journal of Symbolic Computation **40** (2005), no. 1, 795–829.
- [2] Sergio Antoy and Michael Hanus, *Declarative programming with function patterns*, Proceedings of the International Symposium on Logic-based Program Synthesis and Transformation (LOPSTR'05), Springer LNCS 3901, 2005, pp. 6–22.