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**On the expressive power of CCS.** (English) [Zbl 1354.68194](#)

Thiagarajan, P.S. (ed.), Foundations of software technology and theoretical computer science. 15th conference, Bangalore, India, December 18–20, 1995. Proceedings. Berlin: Springer-Verlag (ISBN 3-540-60692-0). Lect. Notes Comput. Sci. 1026, 309-323 (1995).

**Summary:** In the context of structured operational semantics, a useful measure of the expressive power of a process algebra  $\mathcal{P}$  is the class of operator specifications definable in  $\mathcal{P}$  up to a given equivalence. Our goal in this study is to characterize this class of operators for CCS up to strong and branching bisimulation. We use our results to motivate modifications to CCS to eliminate awkward constraints on expressiveness. In particular, we present a strong case for adding a checkpointing operator.

For the entire collection see [\[Zbl 0856.00044\]](#).

**MSC:**

[68Q85](#) Models and methods for concurrent and distributed computing (process algebras, bisimulation, transition nets, etc.) Cited in **3** Documents

[68Q55](#) Semantics in the theory of computing

**Full Text:** [DOI](#)

**References:**

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