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**A simplified proof of the Church-Rosser theorem.** (English) Zbl 1338.03017  
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Summary: Takahashi translation  $*$  is a translation which means reducing all of the redexes in a  $\lambda$ -term simultaneously. In [J. Symb. Comput. 7, No. 2, 113–123 (1989; [Zbl 0661.03008](#)); Inf. Comput. 118, No. 1, 120–127 (1995; [Zbl 0827.68060](#))], *M. Takahashi* gave a simple proof of the Church-Rosser confluence theorem by using the notion of parallel reduction and Takahashi translation. Our aim of this paper is to give a simpler proof of Church-Rosser theorem using only the notion of Takahashi translation.

**MSC:**

[03B40](#) Combinatory logic and lambda calculus

Cited in 4 Documents

**Keywords:**

[\$\lambda\$ -calculus](#); [Church-Rosser theorem](#); [confluence theorem](#); [parallel reduction](#); [Takahashi translation](#)

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

**References:**

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