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## On Monotone product of von Neumann algebras

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摘要

关键词 [factor](#) [von Neumann algebras](#) [monotone product](#)  [\$\mathcal{C}^\*\$ -algebras](#) [GNS construction](#)

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## On Monotone product of von Neumann algebras

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**Abstract** In this note, we give complete descriptions of the structure of the monotone product of two von Neumann algebras and two  $\mathcal{C}^*$ -algebras. We show that the monotone product of two simple von Neumann algebras and  $\mathcal{C}^*$ -algebras aren't simple again. We also show that the monotone product of two hyperfinite von Neumann algebras is again hyperfinite and determine the type of the monotone product of two factors.

**Key words** [factor](#) [von Neumann algebras](#) [monotone product](#)  [\$\mathcal{C}^\*\$ -algebras](#) [GNS construction](#)

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