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**Individual stability of  $C_0$ -semigroups with uniformly bounded local resolvent.** (English)

[Zbl 0892.47040](#)

Semigroup Forum 53, No. 2, 155-161 (1996).

In the spirit of *L. Gearhart's* theorem [Trans. Am. Math. Soc. 236, 385-394 (1978; [Zbl 0371.47033](#))] the author proves the following individual stability theorem for strongly continuous semigroups  $(T(t))$  on a Banach space  $X$  with generator  $A$ . If, for some  $x_0 \in X$ , the map  $z \mapsto R(z, A)x_0$  has a bounded analytic extension to  $\{z : \operatorname{Re} z > 0\}$  then  $\|T(t)R(\lambda, A)x_0\| \leq M(1+t)$  for all  $t \geq 0$ , some (all)  $\lambda \in \varrho(A)$  and some  $M \in \mathbb{R}_+$ . As a corollary he obtains the recent theorem by *L. Weis* and *V. Wrobel* [Proc. Am. Math. Soc. 124, No. 12, 3663-3671 (1996; [Zbl 0863.47027](#))].

Reviewer: [R.Nagel \(Tübingen\)](#)

**MSC:**

[47D06](#) One-parameter semigroups and linear evolution equations

Cited in **22** Documents

**Keywords:**

$C_0$ -semigroups; individual stability; uniformly bounded local resolvent

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

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