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# MATHEMATIKKOLLOQUIUM

Das Institut für Mathematik lädt zu folgendem Vortrag ein:

**César Palencia**

Departamento de Matemática Aplicada, Universidad de Valladolid

## **Sectorial operators in Banach spaces: a Hilbert space approach**

When dealing with semilinear evolution problems  $u' = Au + f(u)$ , as well as with their discretizations, it is of interest to know whether the linear part  $A$  generates a holomorphic semigroup with respect to a given norm. Very often the linear part is a selfadjoint operator plus a perturbation, thus rendering the problem easy in a Hilbert space setting. A new result is presented which shows the way to take advantage of the above situation in order to establish the sectorial character of the linear part in related Banach space norms. The necessary condition reads like an abstract Sobolev embedding of the Banach space into the Hilbert space. Several applications are given.

**Zeit: Freitag, den 27. Juli 2012 um 10:15 Uhr**

**Ort: Bauing.-Gebäude, Technikerstraße 13, B 609**

**Gäste sind herzlich willkommen!**

*Alexander Ostermann*