

**Abed Boulouz**

Faculty of sciences, University Ibn Zohr, Agadir, MOROCCO

## **On norm continuity, differentiability and compactness of perturbed semigroups**

The object of this talk is to treat regularity, like norm continuity, compactness and differentiability for perturbed semigroups in Banach spaces. In particular, we investigate three large classes of perturbations, Miyadera-Voigt, Desch-Schappacher and Staffans-Weiss perturbations. Our approach is mainly based on feedback theory of Salamon-Weiss systems. Our results are applied to abstract boundary integro-differential equations in Banach spaces.(Joint work with H. Bounit, A. Driouich and S. Hadd)

## **References**

- [1] A. Boulouz, H. Bounit, A. Driouich and S. Hadd, *On norm continuity, differentiability and compactness of perturbed semigroups*, submitted.
- [2] S. Hadd, R. Manzo and A. Rhandi, *Unbounded perturbations of the Generator domain*, Discrete and Continuous Dynamical Systems, 35 (2015), 703-723.