

Perturbation by Weakly Continuous Forms

Wolfgang Arendt^a, Moletsane^c, Isabelle Chalendar^b, Boitumelo Moletsane^c

^a Institute of Applied Analysis, University of Ulm (Germany)

^b Mathematics, Univ Paris Est Creteil (France)

^c School of Mathematics, University of the Witwatersrand (South Africa)

wolfgang.arendt@uni-ulm.de, boitumelo.moletsane@wits.ac.za,

isabelle.chalendar@u-pem.fr

In this talk we present a perturbation of a closed form by a weakly continuous form. The perturbation leads to a new semigroup whose difference with the given semigroup consists of compact operators. We apply the results to *elliptic operators* on the Hardy space and generalise a class of quasicontractive semigroups acting on Hardy and weighted Hardy spaces [1].

References

- [1] W. Arendt, I. Chalendar, B. Moletsane, *Perturbation by Weakly Continuous Forms and semigroups on Hardy space*, Journal of Operator Theory, 86 (2) (2021), pp. 331–354.