

1106-47-1042

Matthew Kennedy* (mkennedy@math.carleton.ca), School of Mathematics and Statistics, Carleton University, 1125 Colonel By Drive, Ottawa, Ontario K1S 5B6, Canada. *A Lebesgue-type decomposition theorem for linear functionals on noncommutative function spaces.*

I will discuss a Lebesgue-type decomposition theorem for certain noncommutative function spaces. This can be seen as a non-self-adjoint analogue of Takesaki's decomposition theorem for linear functionals on von Neumann algebras, in the sense that every bounded linear functional is decomposed into "absolutely continuous" and "singular" parts. This result has some interesting applications in noncommutative function theory, for example, leading to a noncommutative generalization of the classical F. & M. Riesz theorem. But it also has applications in the commutative setting, for example, leading to a proof that multiplier algebras on complete Nevanlinna-Pick spaces, including the Drury-Arveson space, have unique preduals.

This is joint work with Dilian Yang. (Received September 10, 2014)