Ken Dykema* (kjd@tamu.edu), Fedor Sukochev and Dmitriy Zanin. Haagerup–Schultz projections and upper triangular forms for some unbounded operators affiliated to finite von Neumann algebras.

Building on remarkable results of Haagerup and Schultz in the bounded case, we exhibit invariant subspaces for certain operators affiliated to a finite von Neumann algebra, that decompose Brown’s spectral distribution measure. In turn, we use these to construct upper triangular forms for such operators. These results have applications to singular ”Dimmer” traces on modules of affiliated operators. (Received August 23, 2015)