There is a simple way of reading a structure of topics into the matrix models of a given logic, namely by taking the topics of a given matrix model to be represented by subalgebras of the algebra reduct of the matrix, and then considering assignments of subalgebras to formulas. The resulting topic-enriched matrix models bear suggestive similarities to the two-component frame models developed by Berto et. al. in Topics of Thought. In this talk I’ll show how this reading of topics can be applied to the relevant logic R, and its algebraic characterisation in terms of De Morgan monoids, and indicate how we can, using this machinery and the fact that R satisfies the variable sharing property, read R as a topic-sensitive logic. I’ll then suggest how this approach to modeling topics can be applied to a broader range of logics/classes of matrices, and gesture at some avenues of research.

Andrew Tedder is currently a postdoctoral researcher at the University of Vienna