

Gyroid as an organiser of entanglement.

Myfanwy E. Evans^{1,*}, Stephen T. Hyde^{2,3}

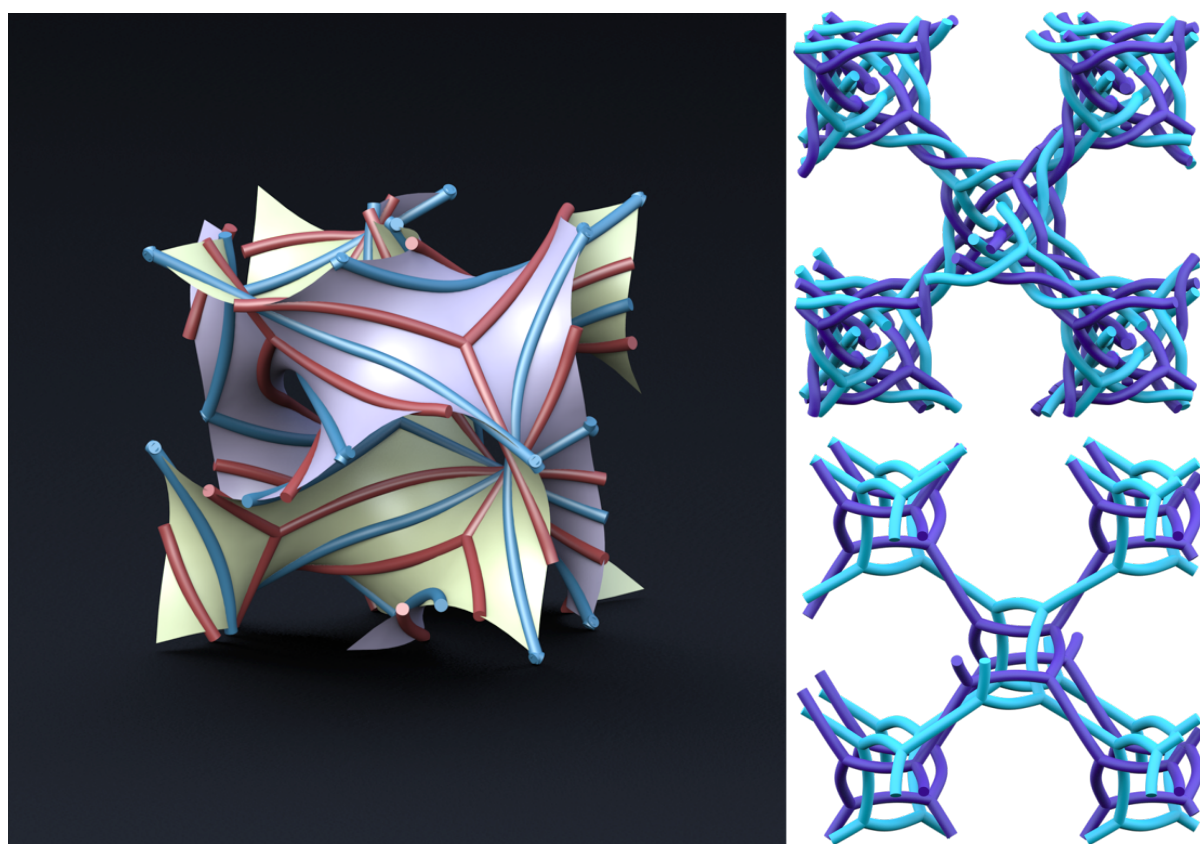
¹*University of Potsdam, Institute for Mathematics, Potsdam, Germany*

²*Australian National University, Canberra, Australia*

³*University of Sydney, Sydney, Australia*

*email: evans@uni-potsdam.de

Three-dimensional structures can be complicated to describe. This talk introduces the use of the gyroid as a scaffold for constructing entanglement, utilising its elegant geometry to organise structures in a way that we can describe. Such entanglements are seen in polymer simulations [1], but the use of the gyroid, and the related srs net, also allows for extensive descriptions of complicated entanglement through simple combinatorial encodings.



[1] J. J. K. Kirkensgaard, M. E. Evans, L. de Campo and S. T. Hyde, *PNAS*, **111**, 1271-1276 (2014).