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*Splicing of knots*

In dimension 3, splicing is how one generates knots such as Whitehead doubles and connect-sums. I will show that the splicing operation for knots in any dimension has an operadic formulation. There are several consequences, for example let  $K$  denote the space of “long” embeddings of the real numbers  $R$  into  $R^3$  such that the embeddings agree with a fixed linear embedding outside of a fixed ball.  $K$  admits an action of “the splicing operad”. Moreover  $K$  is free with respect to this action, with free generating space the space of torus and hyperbolic knots. The splicing operad has a relatively simple homotopy-type as well, which I will describe.