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<u>Title</u>: From Operations on Milnor-Witt K-theory to Motivic Knot Invariants

<u>Abstract</u>: Understanding (co-)homology operations has shown to be very useful in algebraic topology and algebraic geometry. In this talk we focus on operations of an invariant called Milnor-Witt K-theory, where the latter is an invariant of smooth algebraic varieties which arises naturally in motivic homotopy theory. The structure of the talk is as follows. We start with a short introduction to motivic homotopy theory and in particular to Milnor-Witt K-theory. Afterwards we explain results on additive, stable and non-additive operations on Milnor-Witt K-theory. Finally, we indicate how these operations lead to motivic knot invariants. The last part is ongoing joint work with Matthias Wendt based on unpublished ideas of Aravind Asok and Matthias Wendt.