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Joel Kamnitzer* (jkamnitz@aimath.org), Department of Mathematics, UC Berkeley, Berkeley, CA 94720. *The Hopf algebra $U(n)$ via the affine Grassmannian*. Preliminary report.

We will present a construction of the Hopf algebra $U(n)$ using the geometry of affine Grassmannian. This construction was conjectured by Jared Anderson. Under this construction there is a basis for $U(n)$ consisting of stable MV cycles. The multiplication and comultiplication are expressed in terms of natural operations on MV cycles. (Received September 09, 2006)