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Heather A. Dye* (hadye@mckendree.edu), 701 College Rd, Lebanon, IL 62254, and **Micah Chrisman**. *The Three Loop Invariant*.

We introduce a finite type invariant of virtual knots, ϕ_{ijk} , called the three loop invariant. The invariant is a Gauss diagram formula where the regions of the diagram are enhanced with the relative index of the arrows. We investigate its properties with respect to geometric symmetries and connected sums. The invariant ϕ_{ijk} is an analog of the Grishanov-Vassiliev finite type invariant of degree 2. This presentation is on the paper: The Three Loop Isotopy and Framed Isotopy Invariants of Virtual Knots. (Received August 08, 2013)