(1) In "On the LMO conjecture" (arXiv:0803.1732) and "The perturbative invariants of rational homology 3-spheres can be recovered from the LMO invariant" (arXiv:1005.3895), we show that the perturbative $\mathfrak{g}$ invariant of rational homology 3-spheres can be recovered from the LMO invariant for any simple Lie algebra $\mathfrak{g}$, i.e, the LMO invariant is universal among the perturbative invariants. This universality was conjectured in [On a universal perturbative invariant of 3-manifolds , Topology, **37** (1998), 539–574]. Since the perturbative invariants dominate the quantum invariants of integral homology 3-spheres, this implies that the LMO invariant dominates the quantum invariants of integral homology 3-spheres.

(2) It is conjectured that G evaluation of LMO invariant is captured to the trivial connection contribution to the quantum G invariant of rational homology 3-sphere. Actually, it is true for Seifert homology spheres and the contribution can be expressed as a matrix integral. In the case of $G = U(N)$, Garoufalidis and Marino showed that $U(N)$ evaluation of the LMO invariant of arbitrary rational homology 3-sphere can be always expressed as a matrix integral. In "The $O(2N)$ and $Sp(N)$-version of the LMO invariant as a matrix model", we have the same result for $G = O(2N), Sp(N)$.

(3) Samuel J. Lomonaco Jr and Louis H. Kauffman conjectured that tame knot theory and knot mosaic theory are equivalent. In "Tame knot theory and knot mosaic theory are equivalent" (arXiv:0811.0710), we give a proof of the Lomonaco-Kauffman conjecture.