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Langte Ma* (l`tm`fixer@brandeis.edu), 66 Baker Circle, Chestnut Hill, MA 02467. *Surgery for Gauge Theoretical Invariants of Integral Homology $S^1 \times S^3$.*

Given an integral homology $S^1 \times S^3$, one can define the Furuta-Ohta invariant λ_{FO} using the Yang-Mills theory and Casson-Seiberg-Witten invariant λ_{SW} using the Seiberg-Witten theory. In this talk, I will discuss a torus-surgery formula for those two invariants. I will also discuss some computations resulting from the surgery formula, which provides us with more evidence on the equivalence of those invariants. (Received January 31, 2020)