Gluing Formulas for Seiberg-Witten Invariants

Piotr Suwara Massachusetts Institute of Technology

Abstract. One of the most important applications of Seiberg-Witten theory was the construction of families of exotic K3 surfaces via knot surgery carried out by Fintushel and Stern. This construction used gluing formulas obtained by Morgan-Mrowka-Szabo and Taubes. I would like to provide a short survey of how one can obtain gluing formulas using the tools of Monopole Homology.