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**KaiHo Tommy Wong\*** ([wong@math.wisc.edu](mailto:wong@math.wisc.edu)). *Alexander Invariant and Application to Milnor Fiber of Hyperplane Arrangements.*

The study of Milnor Fiber of Hyperplane Arrangement is very active. In particular, it is still remained unknown that the topology of the Milnor Fiber of a central arrangement in  $\mathbb{C}^3$  is combinatorially determined by the intersection lattice.

By the means of Alexander Invariants, I will provide combinatorial upper bounds on the Betti numbers of the Milnor fiber of a central plane arrangement in  $\mathbb{C}^3$ . The obtained upper bounds are sharp in many cases. Comparisons to previously known results and examples will be provided. (Received July 13, 2015)