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**Dhruv Ranganathan** ([dhruv.ranganathan@yale.edu](mailto:dhruv.ranganathan@yale.edu)). *Gromov-Witten Theory of Blowups of Toric Threefolds*

I will report on joint work with Dagan Karp. We use toric symmetries to study the relationship between the Gromov-Witten theories of  $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$  and  $\mathbb{P}^3$ . The toric blowup of  $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$  at two points and six lines is isomorphic to the toric blowup of  $\mathbb{P}^3$  at four points and six lines; this is the permutohedral variety. Gromov-Witten invariants of non-exceptional classes on this variety are equal to certain invariants of  $\mathbb{P}^1 \times \mathbb{P}^1 \times \mathbb{P}^1$  and  $\mathbb{P}^3$ . In this talk, I hope to give a friendly introduction to the central ideas in this project. (Received October 02, 2012)