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Daylene Zielinski* (dzielinski@bellarmine.edu), Bellarmine University, Department of Mathematics, 2001 Newburg Road, Louisville, KY 40205. *A Canonical Basis for Ohtsuki's Finite Type Invariants of Integral Homology 3-Spheres*. Preliminary report.

This talk briefly presents a way to generate expressions in Milnor triple linking numbers for Ohtsuki's finite type invariants of integral homology 3-spheres and then establishes, using graph theoretic and combinatorial techniques, that this set of functions is indeed the dual basis to the vector space of trivalent graphs that T. Ohtsuki, S. Garoufalidis and T. T. Q. Le proved is isomorphic to Ohtsuki's $V_n/V_{(n-1)}$ vector space. This establishes that Ohtsuki's invariants are polynomials of Milnor triple linking number calculations. (Received September 16, 2000)