1100-14-215   **Abdelmalek Abdesselam**, **Christian Ikenmeyer*** (`ciken@math.tamu.edu`) and **Gordon Royle**. *Explicit Formulas for Ottaviani's Invariant of Cubic Threefolds.*

We provide explicit combinatorial formulas for Ottaviani's degree 15 invariant which detects cubics in 5 variables that are sums of 7 cubes. Our approach is based on the chromatic properties of certain graphs and relies on computer searches and calculations. (Received February 08, 2014)