1126-13-150 **Adela Vraciu*** (vraciu@math.sc.edu). *When are generic forms exact zero divisors?* Preliminary report.

Let (R, m) be an Artinian ring. A pair of elements (x, y) is a pair of exact zero divisors if $\mathrm{ann}(x) = (y)$ and $\mathrm{ann}(y) = (x)$.

Conca showed that a standard graded ring with $m^3 = 0$ defined by generic quadratic equations has a Conca generator, i.e. an element $x \in m$ such that $x^2 = 0$ and $m^2 = xm$. If moreover $\mathrm{rank}(m/m^2) = \mathrm{rank}(m^2)$, then a Conca generator is an exact zero divisor. In fact, a generic linear form in a ring as described above is an exact zero divisor. More generally, if a standard graded ring with $m^3 = 0$ admits exact zero divisors, then a generic linear form in that ring is an exact zero divisor.

We investigate a converse of this statement. More precisely, if (R, m) is a standard graded ring and $d \geq 1$ is an integer such that a generic form of degree d is an exact zero divisor, then we prove that $m^3 = 0$. (Received January 10, 2017)