1035-Z1-227   **Anand Kumar*** (`anandkumar@super30.org`), Anand Kumar, Ramanujan School of Mathematics, Shanti Kutir, Chandpur Bela, Patna, India., Patna, 800 001, India. *The Most Fundamental Inequality.*

The main goal of all prestigious mathematics competitions around the world is to present a good mathematical challenge for brilliant young minds. Problems based on concepts of inequalities are vital source of this challenge. From the beginning of our school days, we are gradually trained to learn about basic concepts of inequalities. The most fundamental inequality is: x2 0 for all real x where equality holds if and only if x=0. The inequality is very simple but in this talk we will see its vital role in problem solving, including problems from International Mathematical Olympiad. (Received August 21, 2007)