KEVSER AKTAS, Queen's University
Consecutive Squarefull Numbers
Erdös conjectured that there are $\ll N^{\epsilon}$ consecutive squarefull number pairs for $n, n+1 \leq N$ for any $\epsilon>0$. We prove this conjecture under the asumption of the abc conjecture. We also show by an elementary method that this number is $\ll N^{2 / 5}$ unconditionally. At the end of the paper, we relate this to an old conjecture of Ankeny, Artin and Chowla regarding fundamental units of real quadratic fields.

