

1125-14-1584 **Bruce Reznick*** (reznick@illinois.edu). *Sums of powers of binary quadratic forms*. Preliminary report.

We will discuss the representation of binary forms as a sum of powers of binary forms. Particular attention will be given to characterizing those binary sextic forms which are a sum of two cubes of quadratic forms. We give an algorithm for representing any binary sextic as a sum of three cubes of quadratic forms. (Received September 18, 2016)