1146-52-393 **Karoly Bezdek*** (bezdek@math.ucalgary.ca), Calgary, Alberta T2N1N4, Canada. *Gromov's conjecture for uniform contractions revisited.*

Gromov's conjecture (1987) states that if the centers of a family of N congruent balls in $\mathbb{E}^d$ is contracted, then the volume of the intersection does not decrease. A uniform contraction is a contraction where all the pairwise distances in the first set of centers are larger than all the pairwise distances in the second set of centers, that is, when the pairwise distances of the two sets are separated by some positive real number. The speaker and M. Naszódi [Discrete Comput. Geom. 60/4 (2018), 967-980] proved Gromov's conjecture for all uniform contractions in $\mathbb{E}^d$, $d > 1$ under the condition that $N \geq \left(1+\sqrt{2}\right)^d$. In this talk, I will present some new improvements on this result. (Received January 27, 2019)