Electronic Supplementary Material (ESI) for Soft Matter.

Supplementary information to:

Granular chain escape from a pore in a wall in the presence of particles in one side: Comparison to polymer translocation

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Simulation results show that the translocation exponent depends on the persistence length (P_l) of the polymer (Fig. S1) and smaller exponents will be achieved when the polymer is completely flexible with P_l of one monomer compared to P_l of ten monomers. The ratio of the pore to the diameter of a single monomer (s/σ) is a geometrical parameter that can affect the translocation exponent too. Our simulation results for the translocation exponent as a function of s/σ does not show any explicit dependency since the differences are in the range of error bars. However when we plot the translocation exponent as a function of the ratio of persistence length over the size of pore (P_l/s) most of the data points obey an increasing trend for the exponent α from about 2.6 to 3.1 by increasing the P_l/s from 0.2 to about 7, although fluctuations in the range of error bars are observed (Fig. S3).

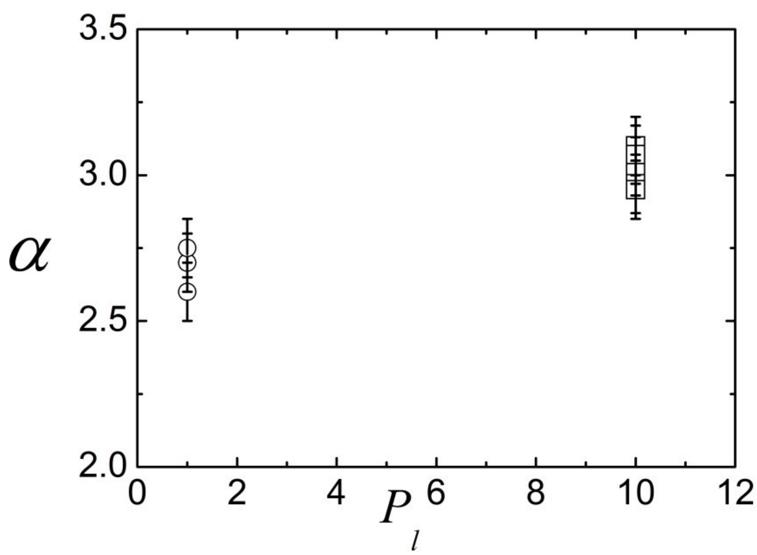

Fig S1: Simulation results for the translocation exponent α as a function of the persistence length of polymer P_l for different values of s/σ. The persistence length is shown in terms of the number of monomers.

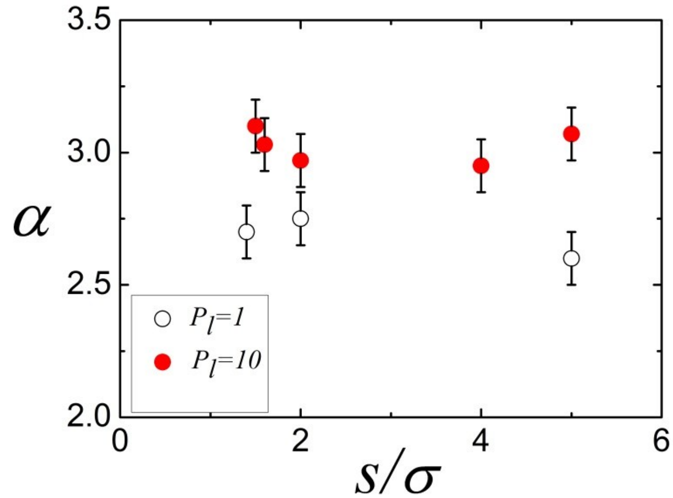

Fig S2: Simulation results for the translocation exponent α as a function of s/σ for two different persistence lengths (P_l) of 1 monomer and 10 monomers.

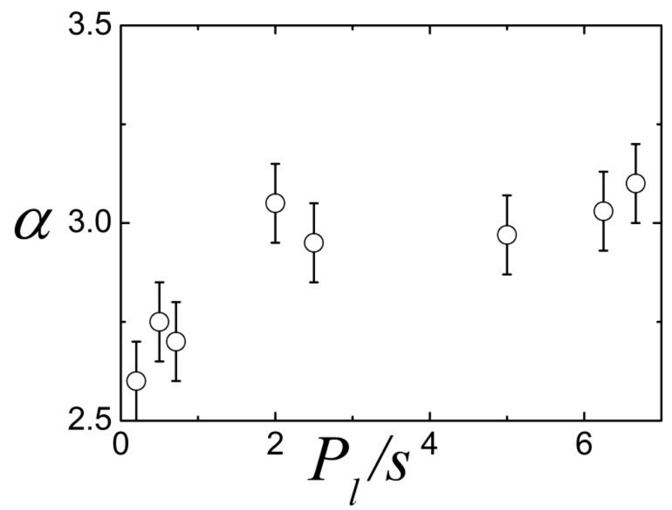

Fig S3: Simulation results for the translocation exponent α as a function of P_l /s.