

# ASYMPTOTIC GEOMETRY OF EXCURSION SETS OF NON-STATIONARY GAUSSIAN RANDOM FIELDS

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In this talk, we present some recent asymptotic results on the geometry of excursion sets of Gaussian random fields. Namely, we consider the asymptotics of the mean volume, surface area and the Euler characteristic of excursion sets of non-stationary smooth Gaussian random fields with a unique point of maximum variance (lying on the boundary of the observation window) as the excursion level tends to infinity.

Joint work with D. Zaporozhets (St. Petersburg Branch of Steklov Mathematical Institute, Russia)

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