

GRADUATE SEMINAR

Jingjiao Chen

On a generalization of three parameter Crack distribution

MSc Student supervised by Taehan Bae and Andrei Volodin

Monday, November 30th

1:00 PM

Math Lounge (CW307.20)

Abstract: The heavy-tailedness and skewness to the right are two distinct features of catastrophic data-sets often observed in insurance and finance. Although the three parameter crack distribution family, a mixture of the inverse Gaussian distribution and length biased inverse Gaussian distribution, has a flexibility to fit some highly skewed data, the thin-tailedness of the normal distribution which forms a basis for the crack distribution, limits its use for modeling actuarial and financial extreme data. In this talk, a new class of heavy-tailed crack distribution families based on some heavy-tailed stress density functions will be introduced. Some concrete applications of the extreme value theory to the construction of extreme value crack distribution families will be discussed.