Distributon of the infinity norm of feature vectors  $10^{3}$ number of e-mails 10<sup>2</sup> 10<sup>1</sup> 10<sup>0</sup> 10<sup>0</sup>  $10^{2}$  $10^{1}$ 10<sup>3</sup>  $10^{5}$  $10^{4}$  $||v||_{\infty}$  for feature vector v