Plot of first three eigenvectors, with N=100 1.00 0.750.500.250.00-0.25Eigenvector with  $\lambda_1 = 9.6775e - 08$ -0.50Eigenvector with  $\lambda_2 = 3.8689e - 07$ Eigenvector with  $\lambda_3 = 8.7015e - 07$ Exact eigenvector of  $\lambda_1$ -0.75Exact eigenvector of  $\lambda_2$ Exact eigenvector of  $\lambda_3$ -1.00 -0.2 0.4 0.6 0.0 0.8 1.0

 $\hat{x}_i$