Testing Powers of All Local Tests of Mantel for Increasing Dimension 4.Exponential 1.Linear 2.Cubic 3.Step Function **5.Joint Normal** Neighborhood Choice of Y 7.W Shape 9.Fourth Root 10.Logarithmic 6.Quadratic 8.Two Parabolas 11.Circle 12.Ellipse 13.Spiral 14.Square 15.Diamond 16.Sine Period 1/2 17.Sine Period 1/8 18. Multiplicative Noise 19.Uncorrelated Binomial **20.Independent Clouds** 0.4 0.3 0.2 0.1

Neighborhood Choice of X