

高斯模糊

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$$\mu_1 = \mu_2 = 0 \quad \sigma_1 = \sigma_2 = \sqrt{\rho}$$

$$f(x, y) = \frac{1}{2\pi r^2 \sqrt{1-\rho^2}} e^t$$

$$t = -\frac{1}{2(1-\rho^2)} \left(\frac{x^2}{r^2} + \frac{y^2}{r^2} - \rho \cdot \frac{xy}{r^2} \right)$$

$$= -\frac{1}{2(1-\rho^2)} \left(\frac{x^2+y^2}{r^2} - \rho \cdot \frac{xy}{r^2} \right)$$

$$A = 1 - \rho^2$$

$$B = \frac{1}{2\pi r^2 \sqrt{A}}$$

$$C = -\frac{1}{2A}$$

$$t = C \cdot \frac{x^2+y^2-\rho xy}{r^2}$$

$$f = B \cdot e^t$$