

$$m = 0.3 \tag{1}$$

$$f_0 = 0.4 \tag{2}$$

$$Beckmann(m, t) = \exp((t * t - 1)/(m * m * t * t))/(m * m * t * t * t * t) \tag{3}$$

$$Fresnel(f_0, u) = f_0 + (1 - f_0) * ((1 - u)^5) \tag{4}$$

$$H = \vec{h} \tag{5}$$

$$V = \vec{\omega}_o \tag{6}$$

$$L = \vec{\omega}_i \tag{7}$$

$$N = \vec{n} \tag{8}$$

$$D = Beckmann(m, (N \cdot H)) \tag{9}$$

$$F = Fresnel(f_0, (V \cdot H)) \tag{10}$$

$$G = 1/(N \cdot V) \tag{11}$$

$$val = \max(D * G, 0.0) \cdot F \tag{12}$$

$$color = 1, 0.5, 1 \tag{13}$$

$$f = color * val/(N \cdot L) \tag{14}$$