

# Diffraction Shader

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13. Oktober 2013

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# **1 Introduction**

## **1.1 Motivation**

effect of diffraction, stam, genf, rendering snake skin

## **1.2 Related Work**

see papaer listing

## **1.3 Thesis Outline**

describe what is which chapter

## **2 Theoretical Background**

### **2.1 The Effect Of Diffraction**

### **2.2 BRDF - Spectral Rendering**

### **2.3 Stams derivation**

### **2.4 Taylor Series Approximation**

### **2.5 Sampling: Gaussian Window**

### **2.6 Our derivation**

## **3 Implementation**

### **3.1 Setup**

### **3.2 Precomputations in Matlab**

### **3.3 jrtr Framework**

### **3.4 GLSL Diffraction Shader**

## **4 Data Acquisition and Evaluation**

### **4.1 Diffraction Grating**

### **4.2 Snake Skin Parameters**

## 5 Results

## **6 Conclusion**

### **6.1 Further Work**