



# INTRODUCTION

SEMINAR 0

Computer Graphics 2

# Basic information

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- Course website:
  - [https://dai.fmph.uniba.sk/w/CG2\\_2014/en](https://dai.fmph.uniba.sk/w/CG2_2014/en)
  - Attendance optional but recommended

# Evaluation & Assignments

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- Assignment each week
  - ▣ Late submissions are for 0%
  - ▣ At least 60% from all assignments is required
- Send via email at: **cg2.2015.hw@gmail.com**
  - ▣ Email subject: ExNN, where NN is assignments number
  - ▣ Zipped source code - no executable
- Assignments will represent 50% of final evaluation
- Additional activity can be rewarded with up to 10% of your final evaluation

# Ex00

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- Send your name at: [cg2.2015.hw@gmail.com](mailto:cg2.2015.hw@gmail.com)
- Your name and email will be added to evaluation sheet

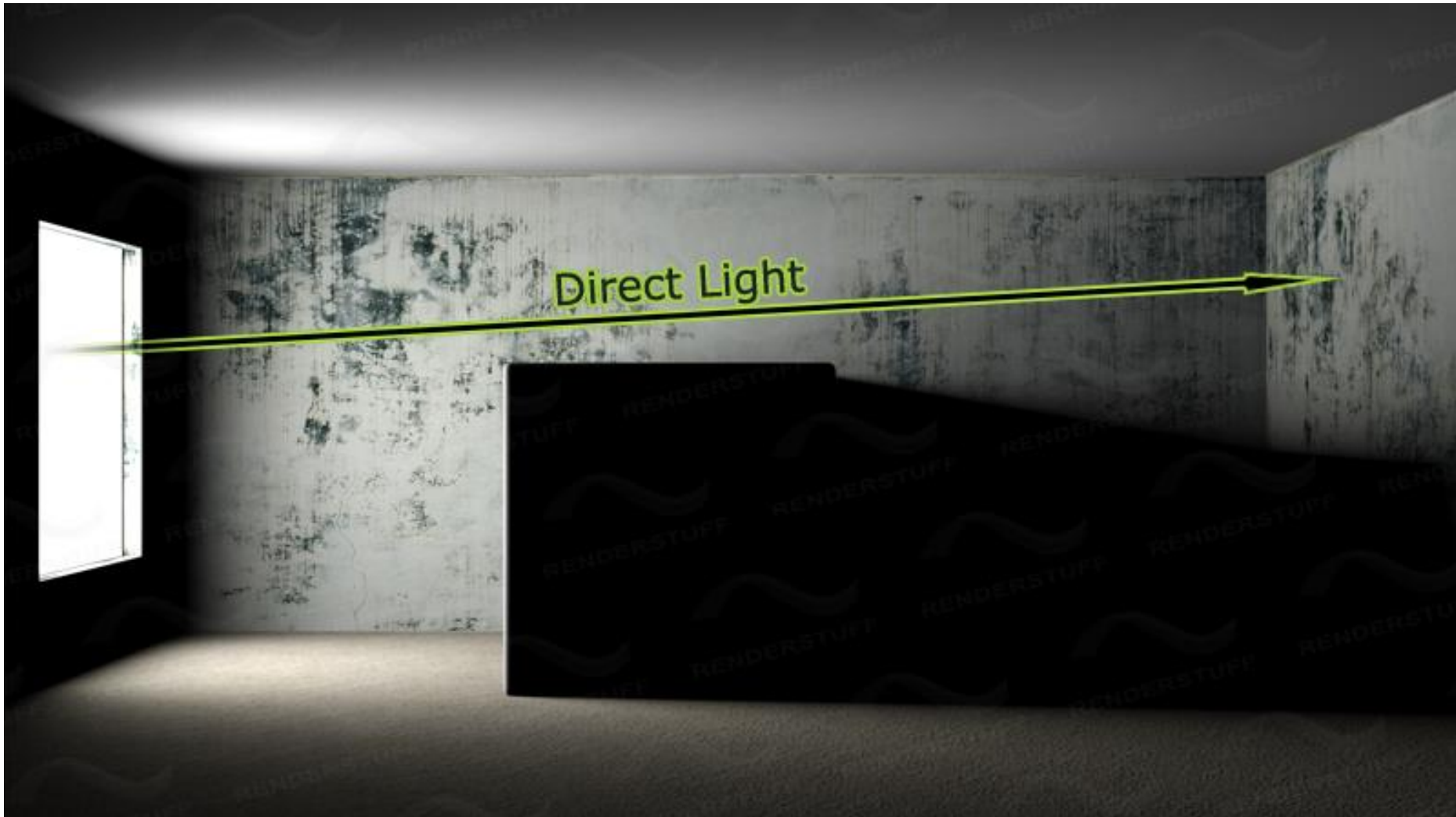
# Motivation

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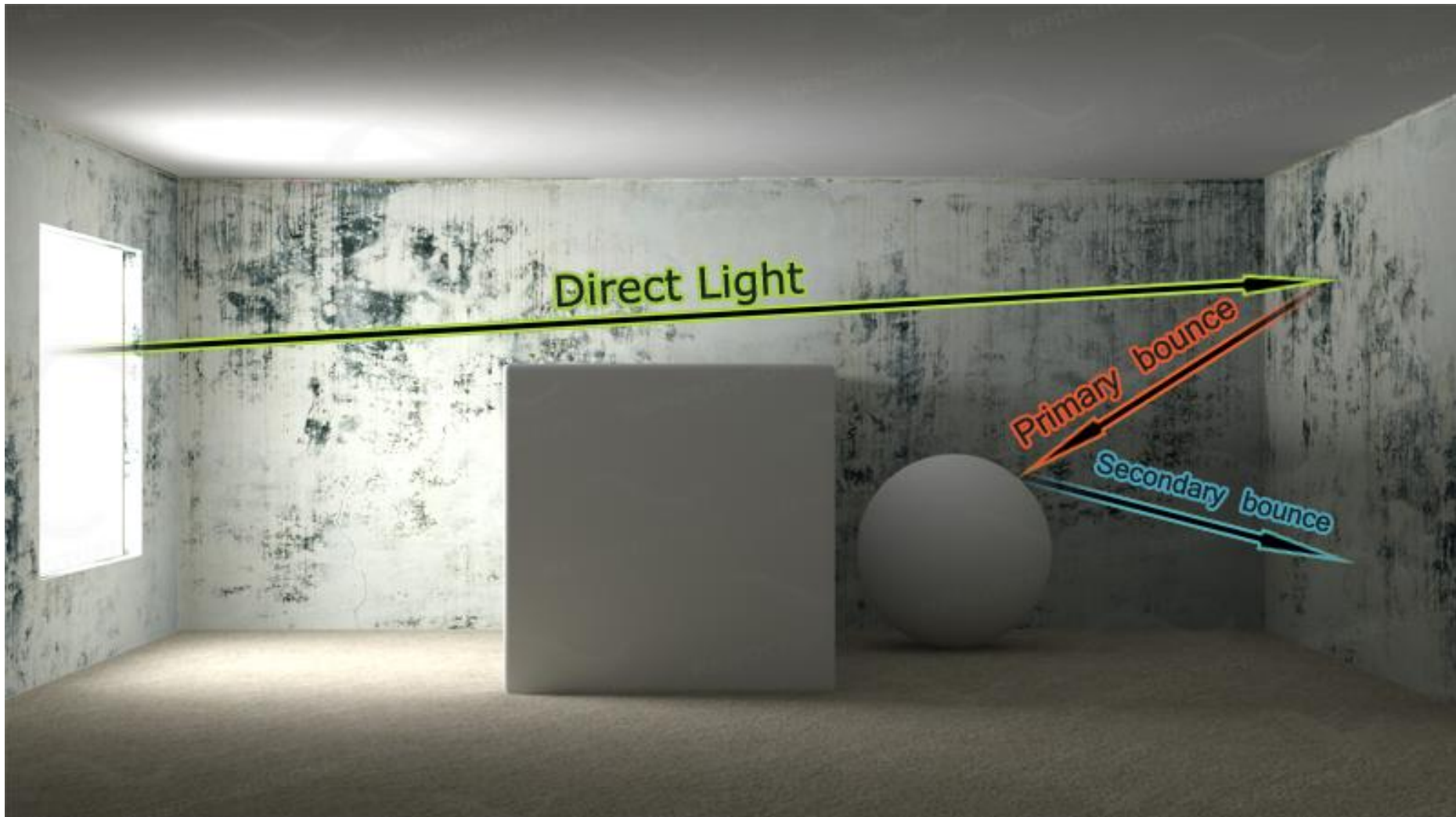
# Motivation

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# Motivation

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# Motivation

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# Motivation

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# C# Introduction

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- Garbage collector
  - ▣ `return new Vector4(0, 0, 0, 1);`
- Namespaces
  - ▣ `Math.Abs(x);`
- Object oriented
  - ▣ `int i = 1;`
  - ▣ `string s = i.ToString();`

# C# Objects

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```
1. public class Vector4 {
2.     public static readonly Vector4 Zero = new Vector4(0, 0, 0, 1);
3.     public Double X, Y, Z, W;
4.     public Double Length {
5.         get {
6.             return Math.Sqrt(this.X * this.X + this.Y * this.Y + this.Z * this.Z);
7.         }
8.     }
9.     public Vector4(Double x, Double y, Double z, Double w = 0) {
10.        this.X = x; this.Y = y; this.Z = z; this.W = w;
11.    }
12.    public static Vector4 operator *(Vector4 a, Double b) {
13.        return new Vector4(b * a.X, b * a.Y, b * a.Z, 0);
14.    }
15.    public static Vector4 operator *(Double a, Vector4 b) {
16.        return new Vector4(a * b.X, a * b.Y, a * b.Z, 0);
17.    }
18. }
```

# C# Object Access

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1. `Vector4 P = new Vector4(0, 0, 0, 1);`
2. `Vector4 Q = P - Vector4.Zero;`
3. `List<Vector4> list = new List<vector4>();`
4. `list.Add(P);`
5. `list.Add(Q);`
6. `foreach (Vector4 X in list) {`
7.     `Double length = X.Length;`
8. `}`

# IDE

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- Visual Studio 2010
- Sharp develop
- Mono develop

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Questions?