Trabalho Prático
Ray Tracing

Renato Sérgio Lopes Júnior

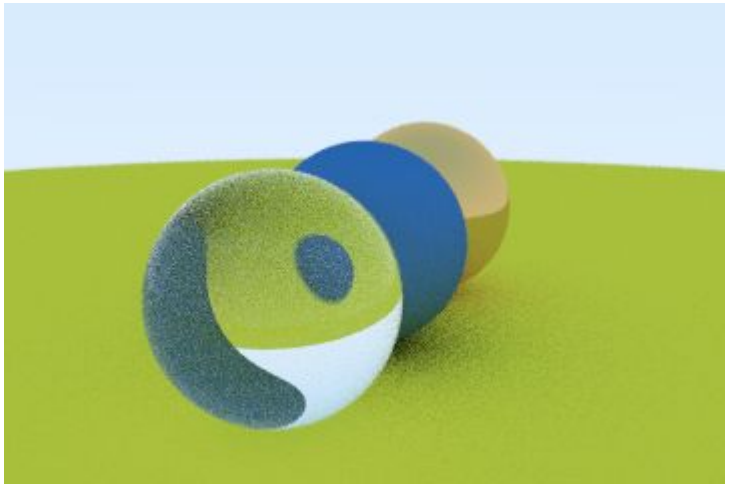
Introdução

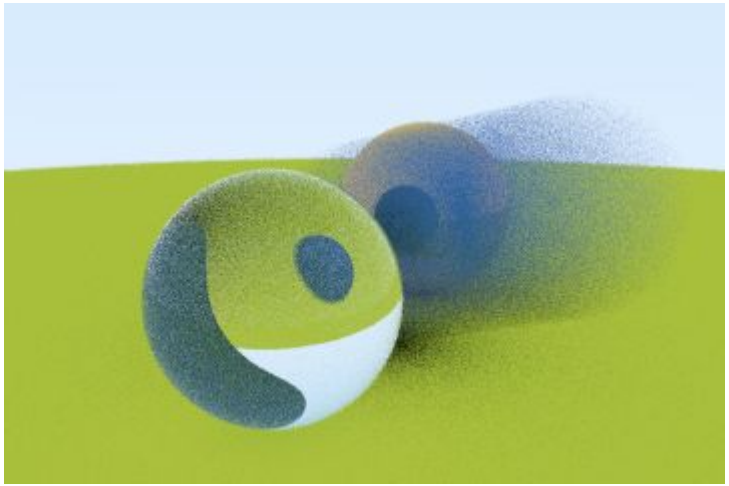
Neste trabalho foi produzido um programa que realiza a renderização por ray tracing de uma cena.

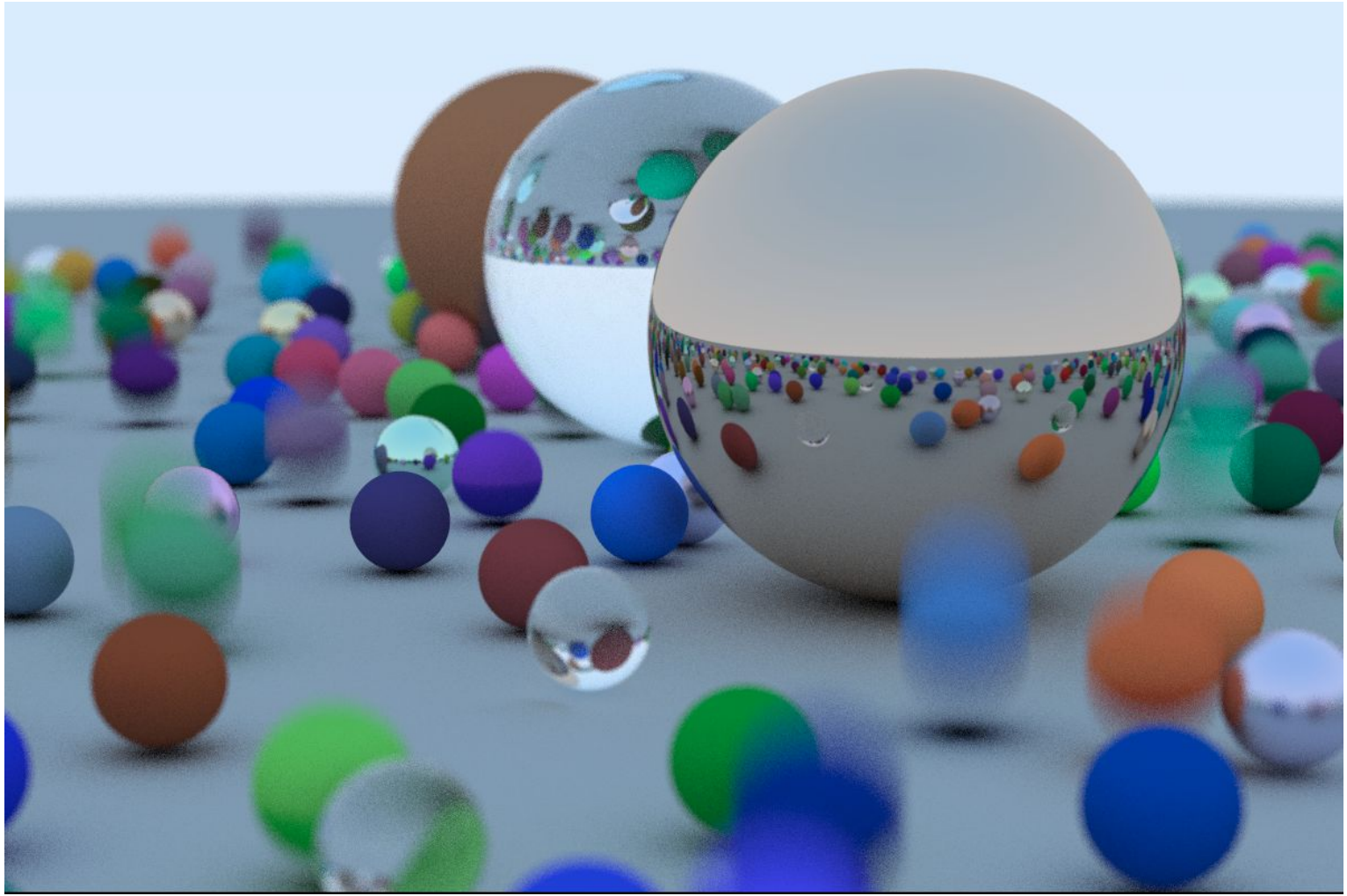
Os livros *Ray Tracing in One Weekend* e *Ray Tracing The Next Week* foram usados como guia.

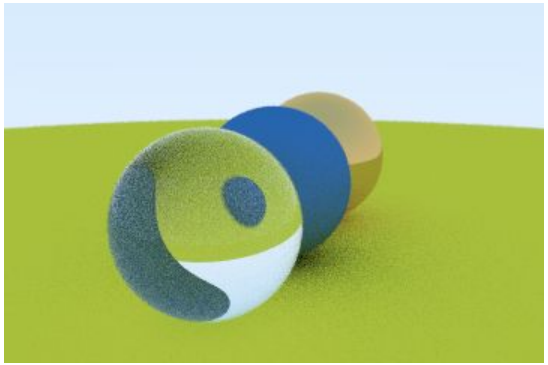
Dificuldades Encontradas

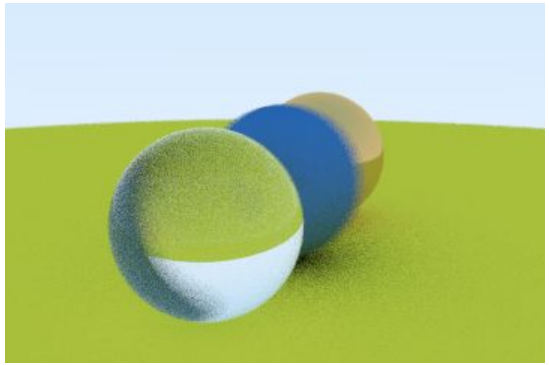
Incorporação de Aspectos Temporais

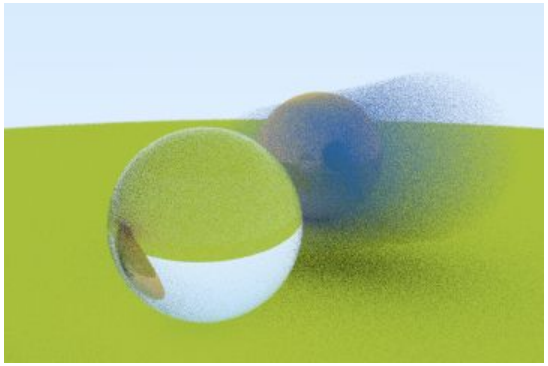


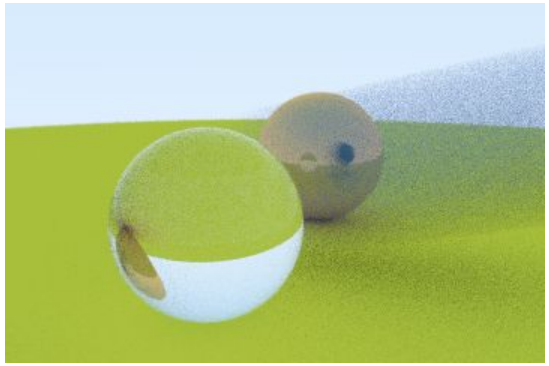










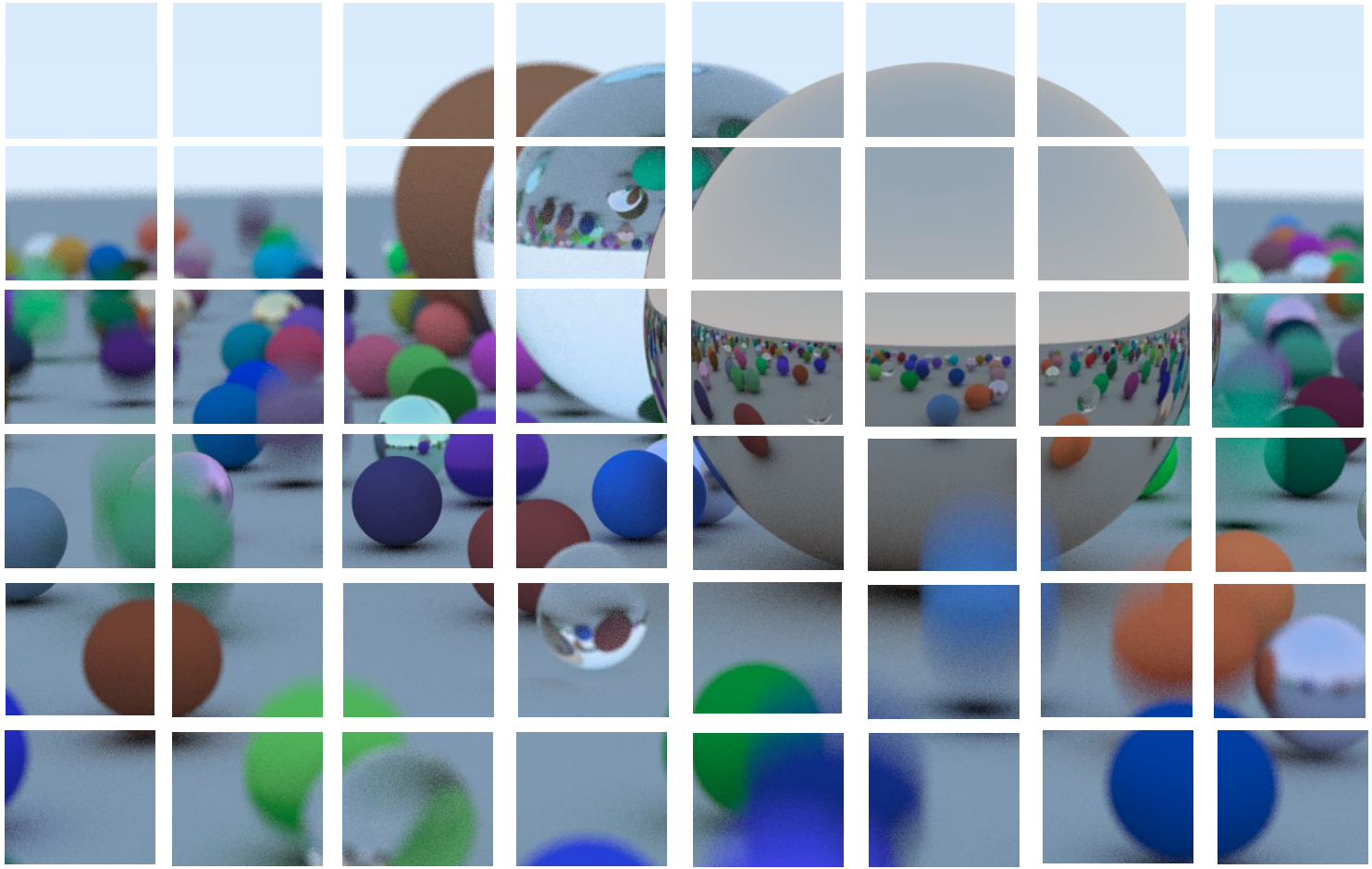


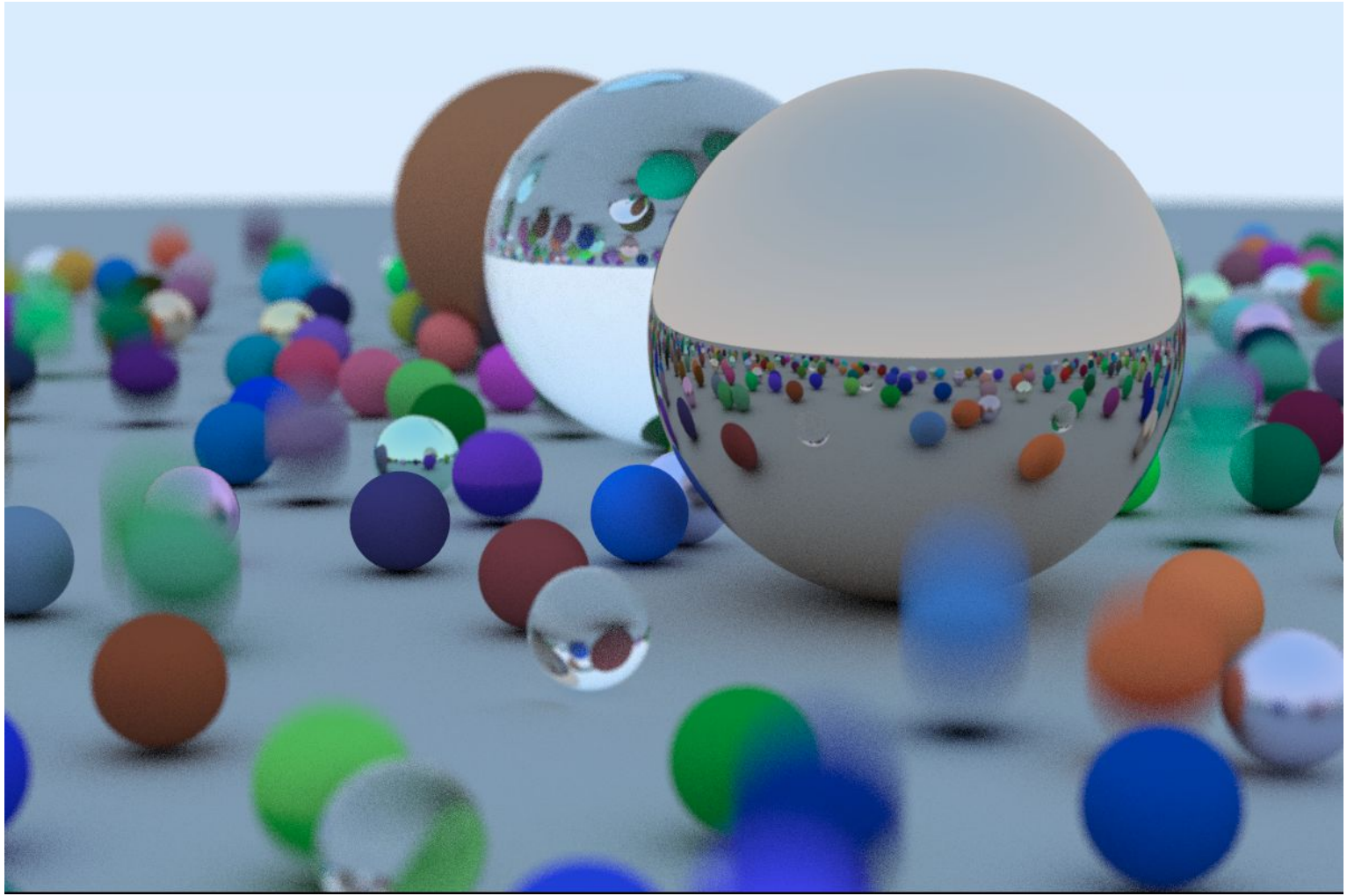
Fixed

Paralelização

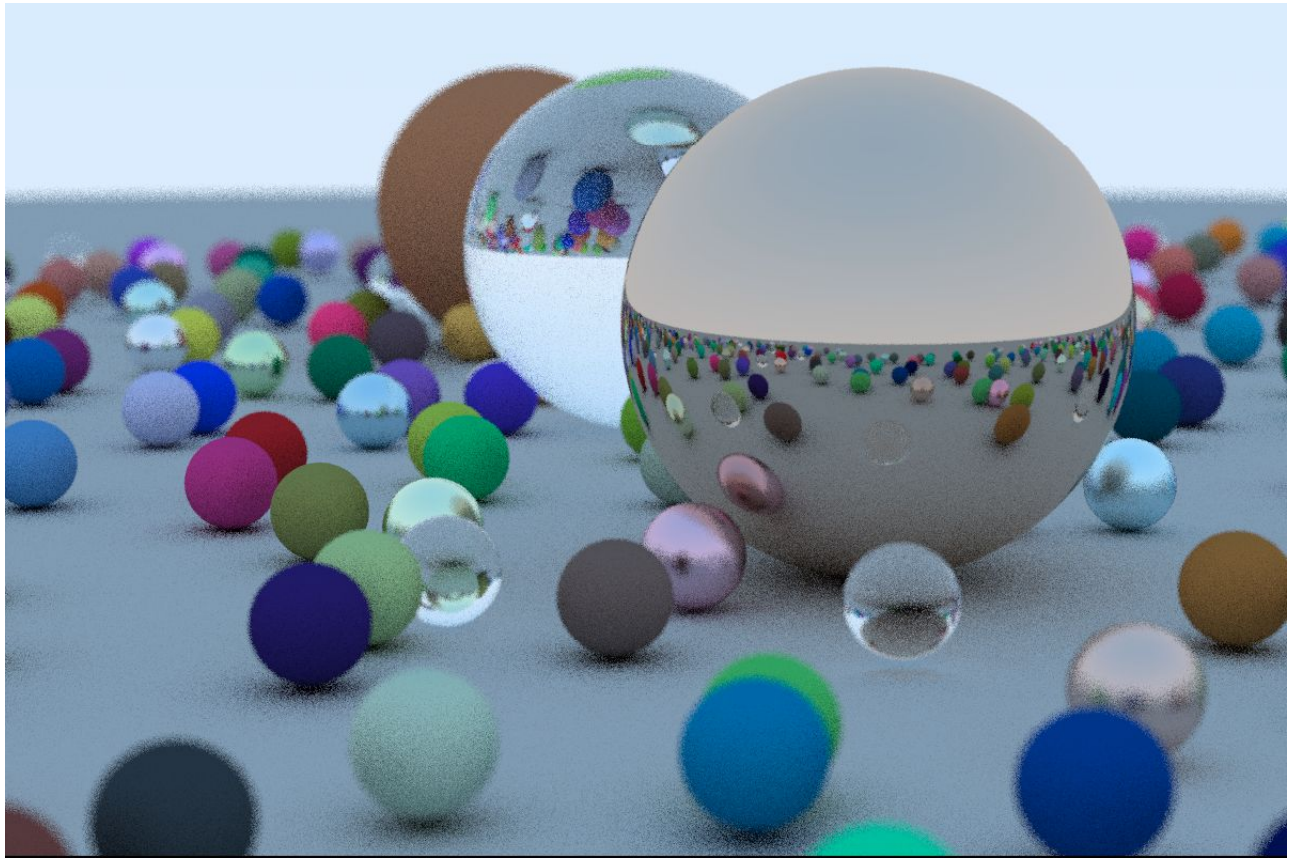
Para tornar a execução mais rápida, a biblioteca *multiprocessing* foi utilizada.

A imagem foi dividida entre os núcleos disponíveis.

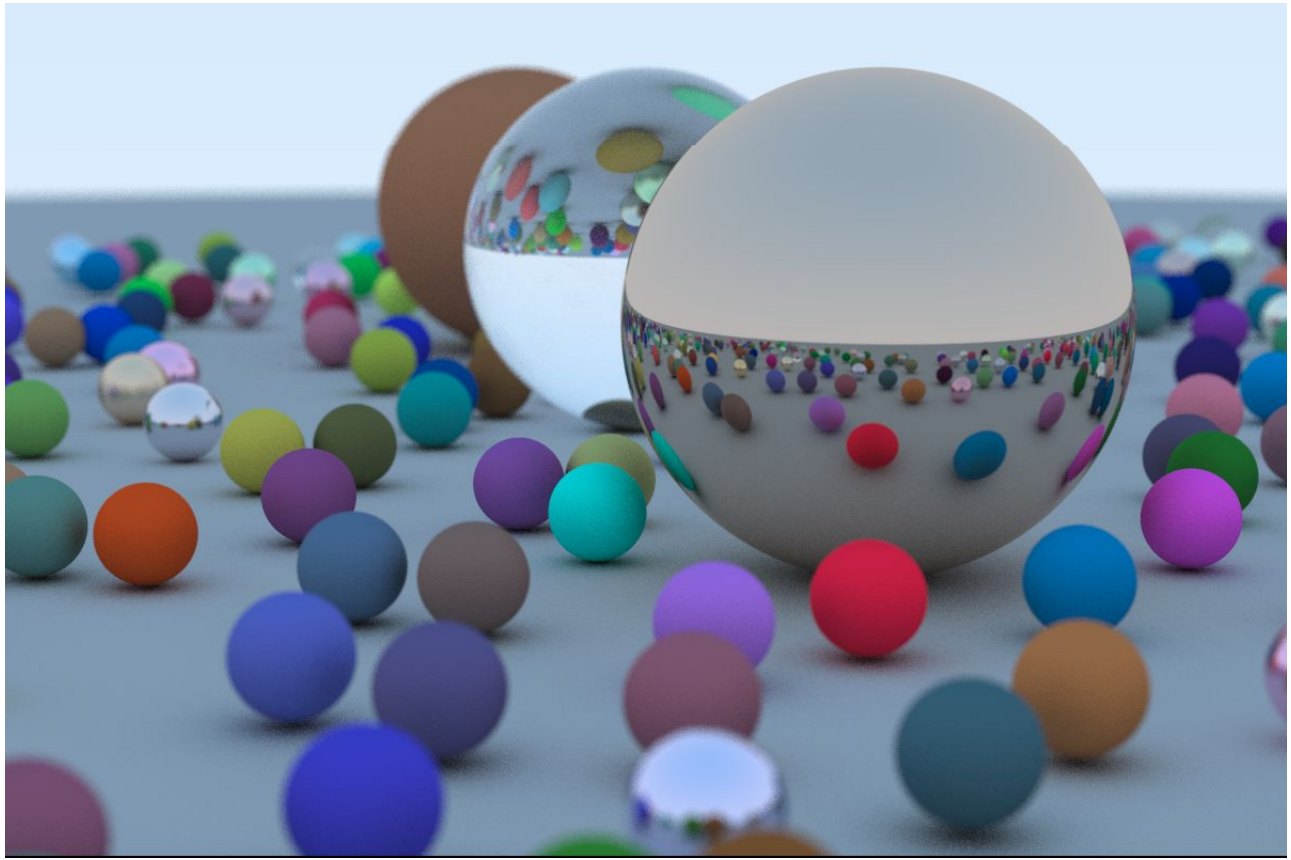




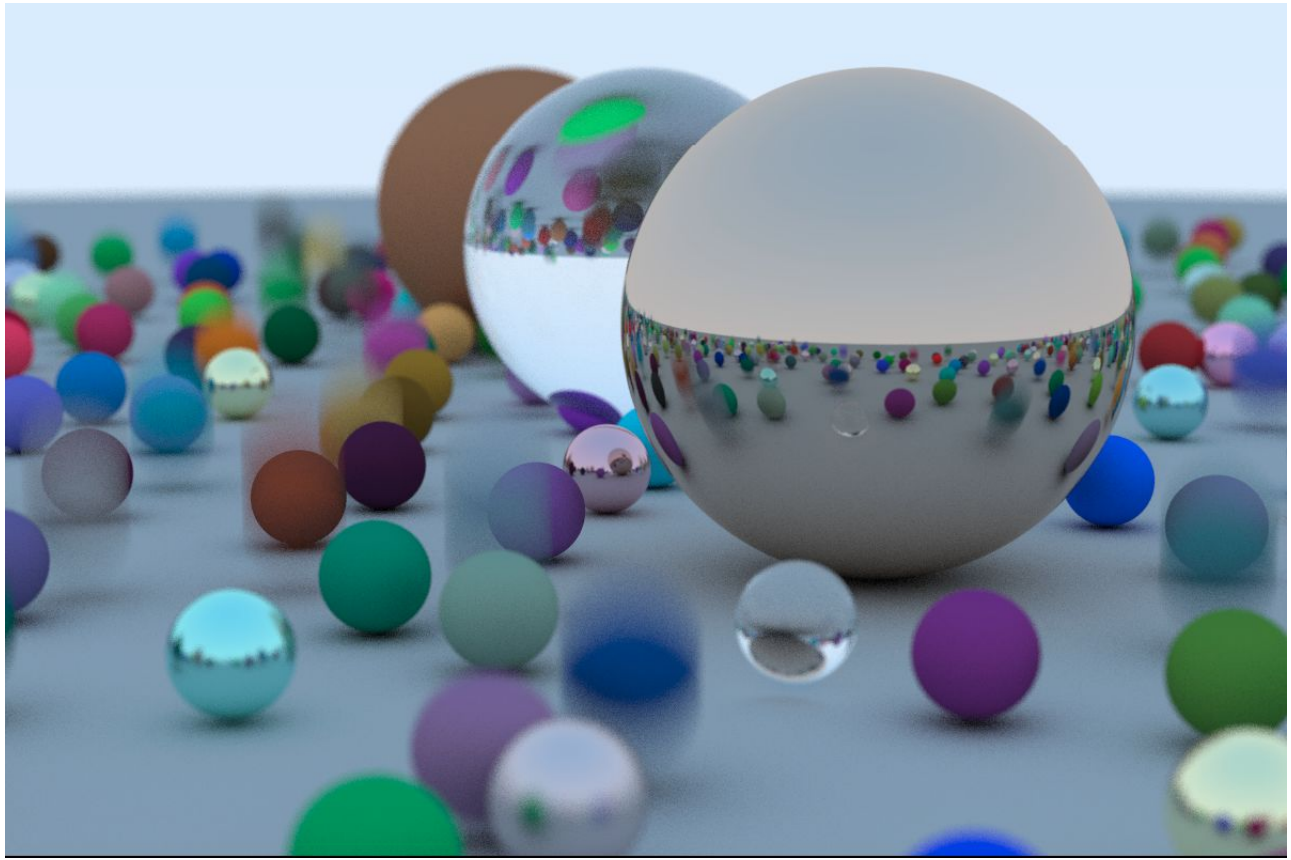
Imagens Geradas



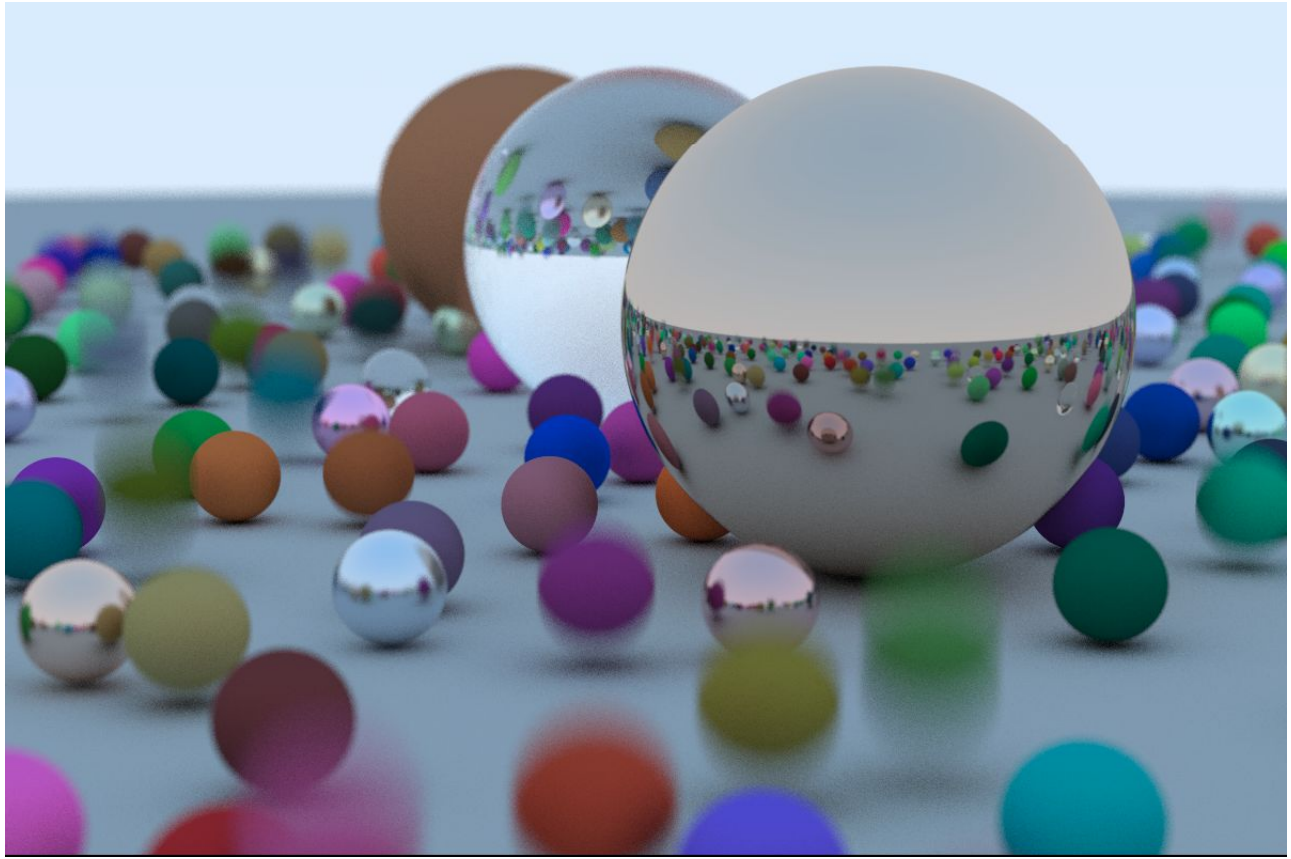
1200x800, 20



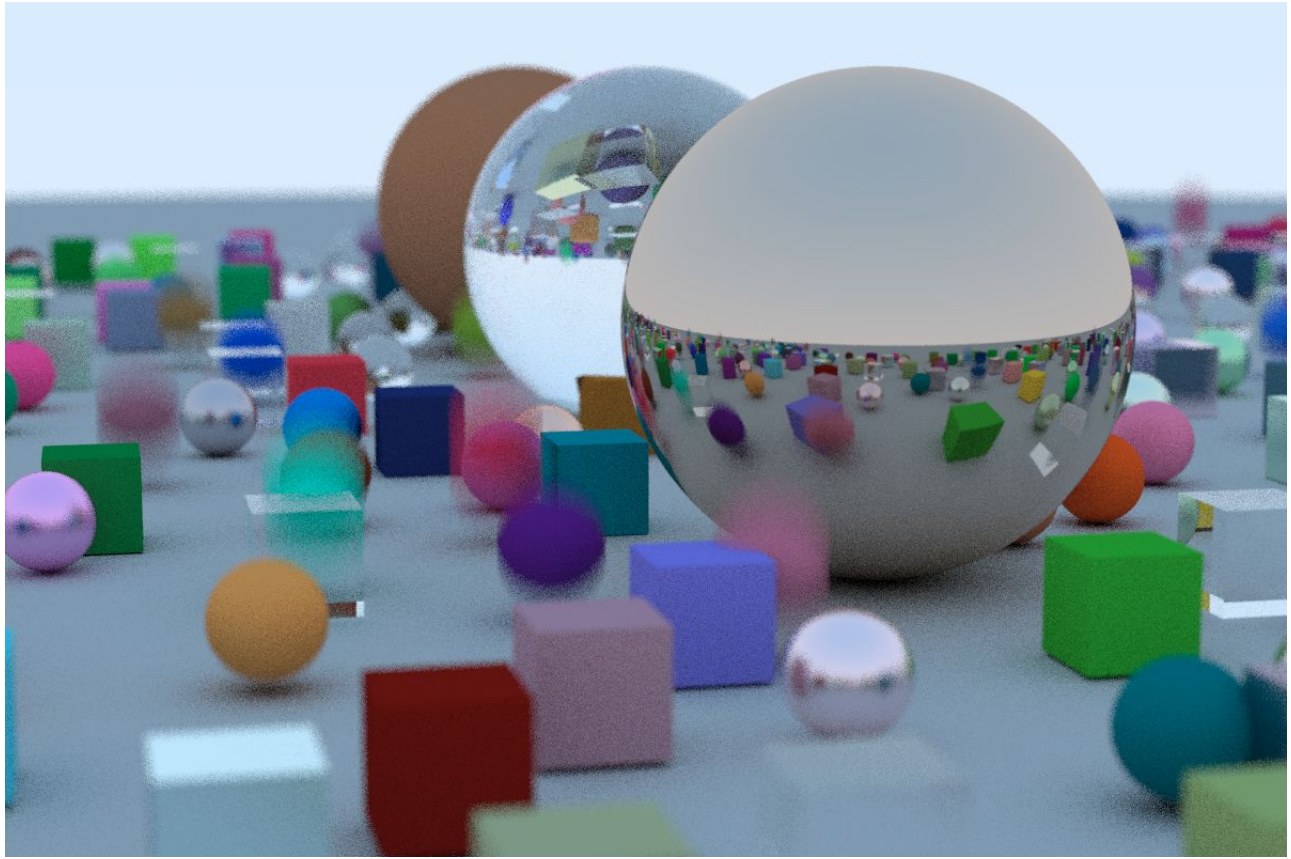
1200x800, 100



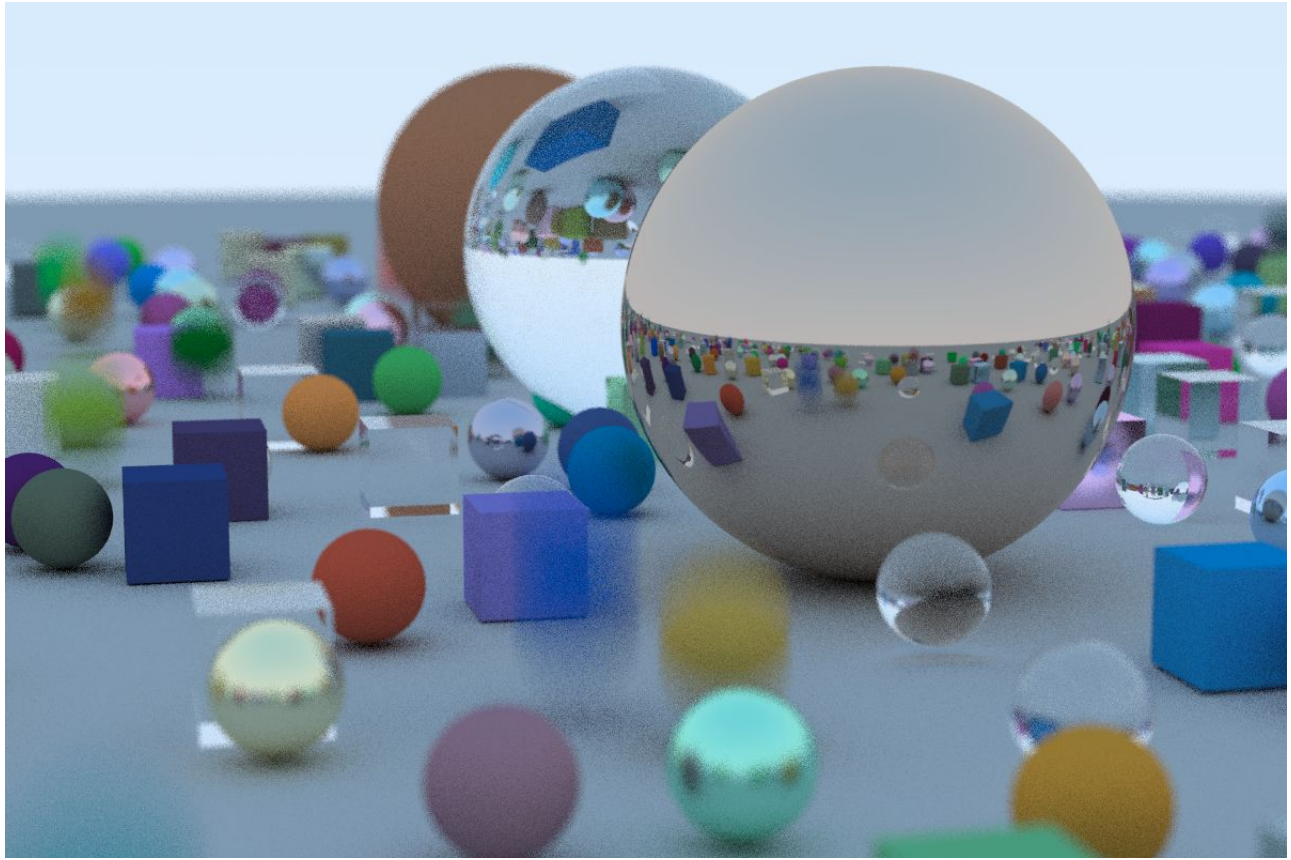
1200x800, 50



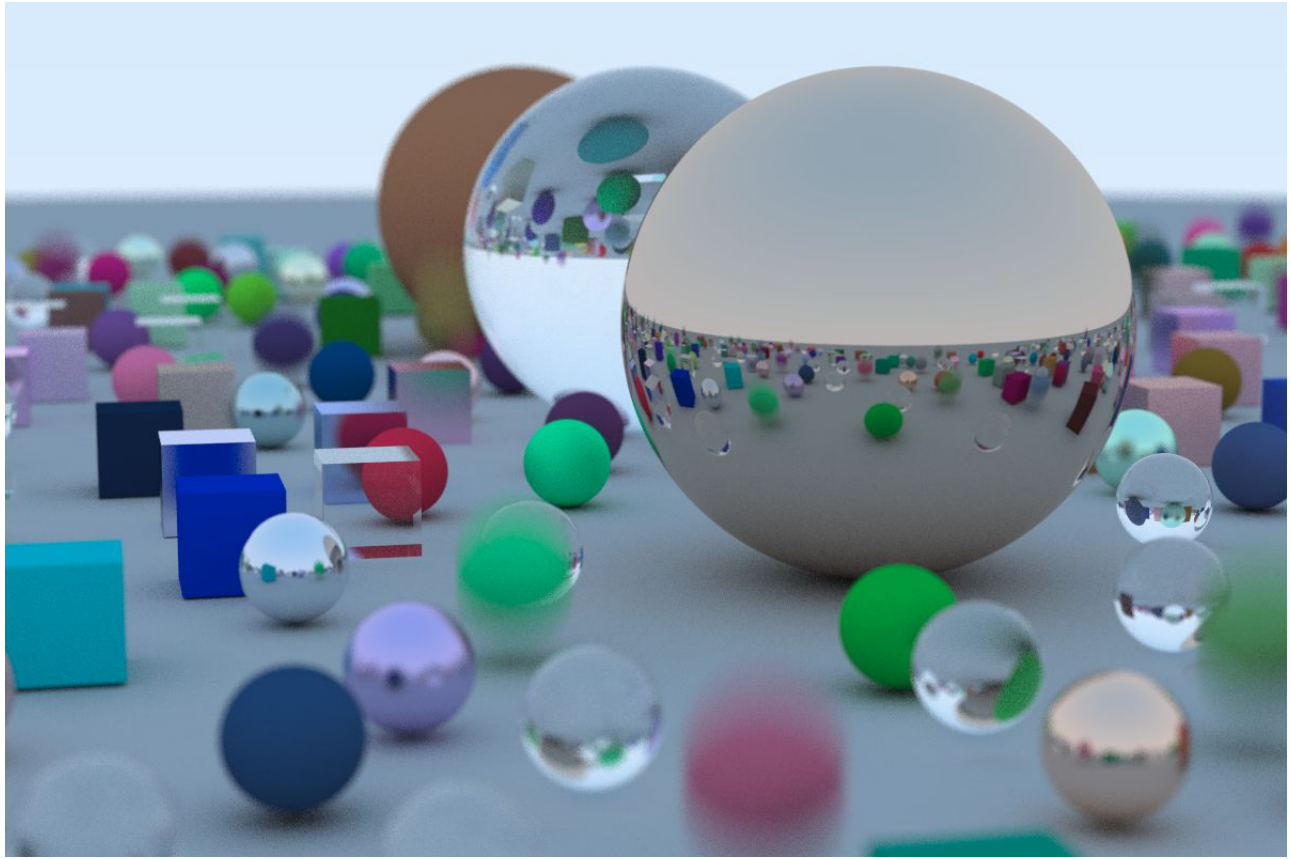
1200x800, 50



1200x800, 50

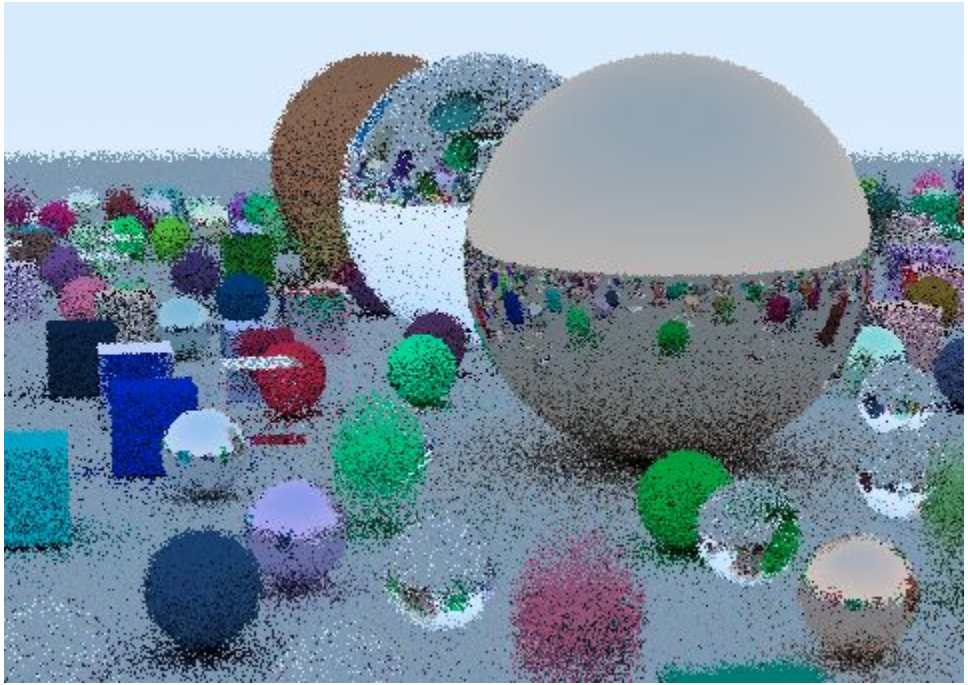


1200x800, 50

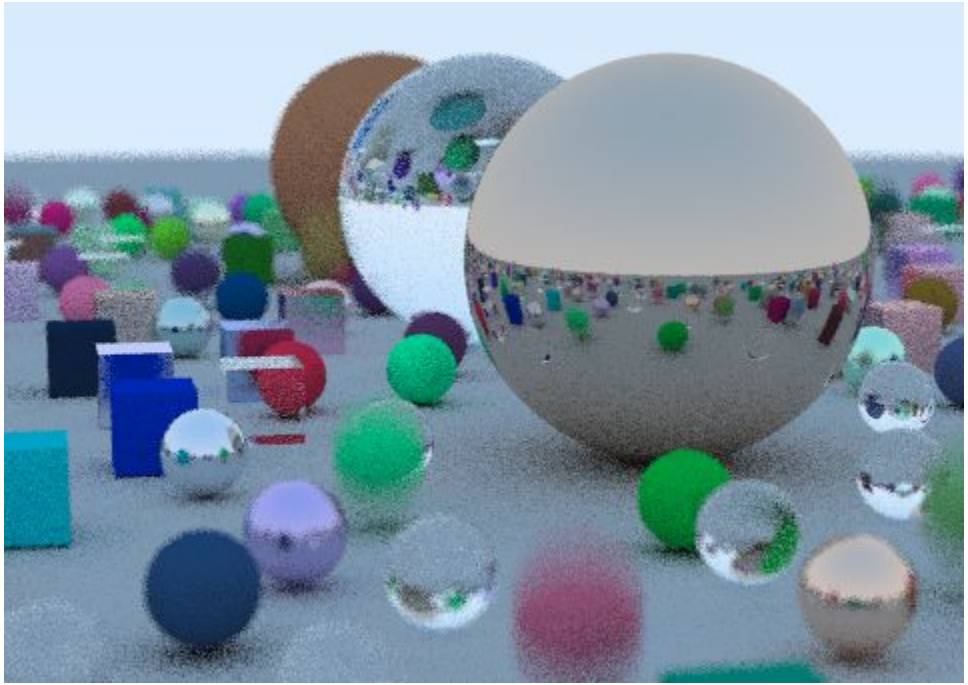


1200x800, 100

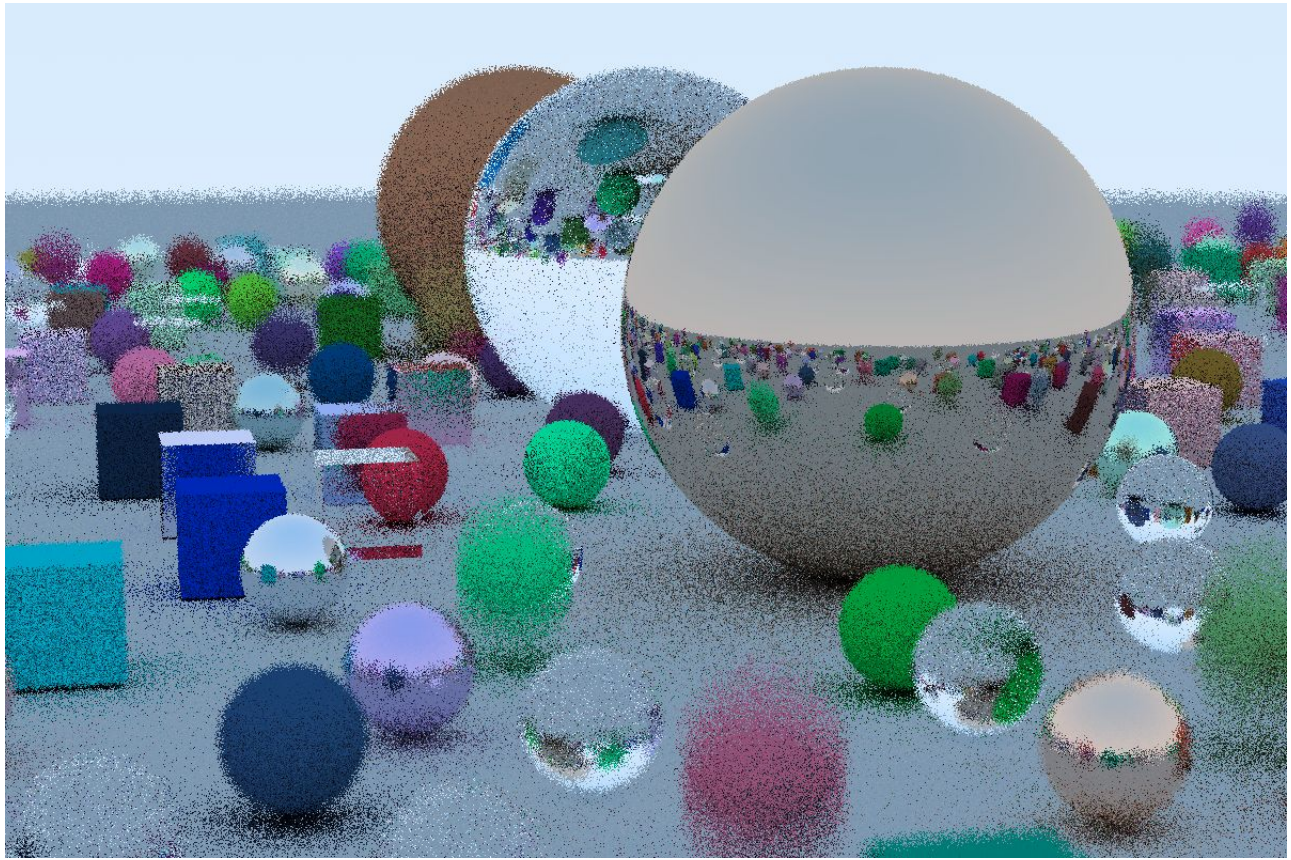
Análise de Tempo



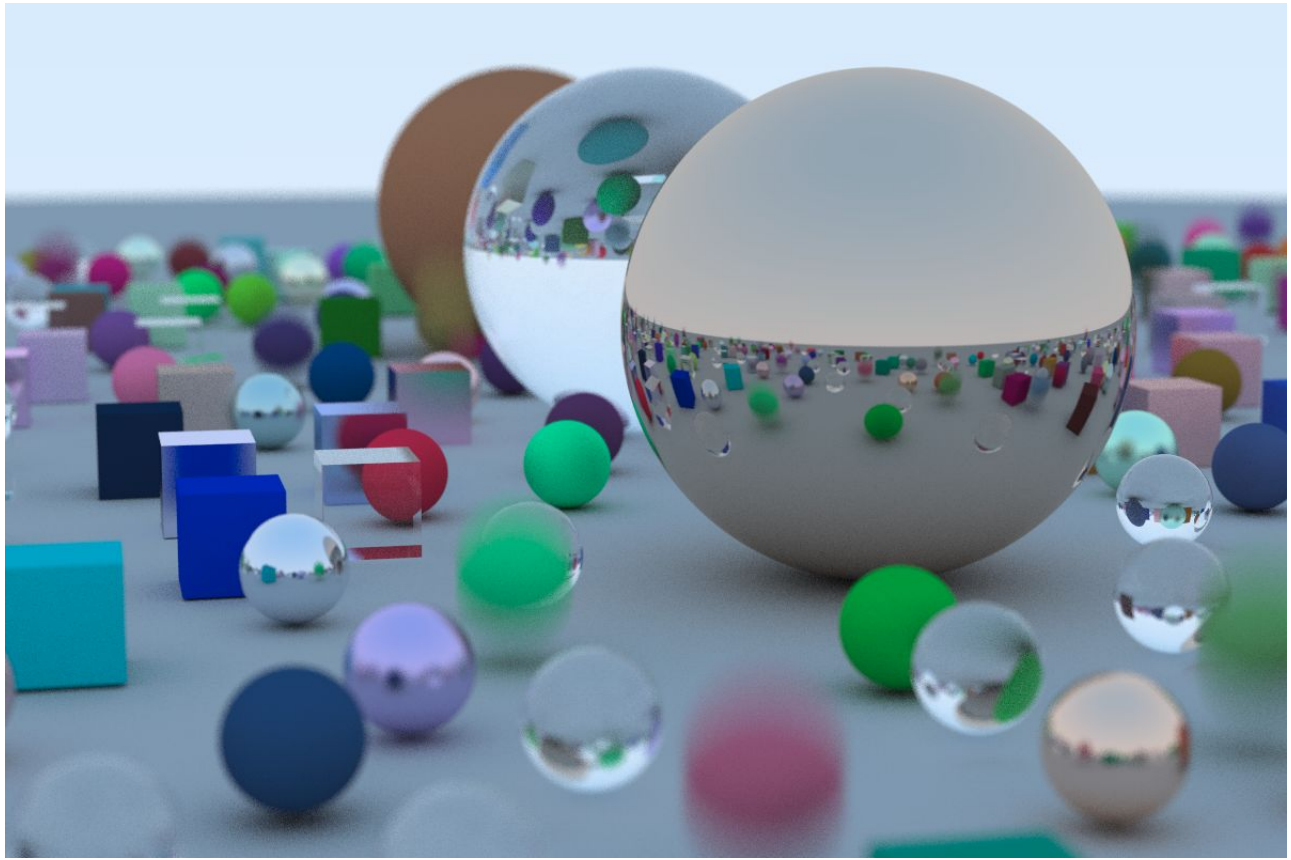
480x340, 1 raio por pixel **1m37s**



480x340, 10 raios por pixel **15m17s**



1200x800, 1 raio por pixel **8m55s**



1200x800, 100 raios por pixel **921m30s**

Referências Biliográficas

SHIRLEY, Peter. Ray Tracing in One Weekend. v. 1.54. 2018

SHIRLEY, Peter. Ray Tracing: The Next Week. 2016.