

# Parallel Programming

*Reading Course (Fall 2017)*

## Course participants:

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## Material:

- Udacity course Intro to Parallel Programming:  
<https://classroom.udacity.com/courses/cs344>
- (Structured Parallel Programming Patterns for Efficient Computation: Michael McCool, Arch D. Robison, James Reinders)
- Papers: TBD

## Course schedule:

Week	Topic	Materials	Responsible
#1 (35)	Introduction	Udacity: Lesson 1 - The GPU Programming Model	All
#2 (36)	GPU Hardware and Parallel Communication Patterns	Udacity: Lesson 2 - GPU Hardware and Parallel Communication Patterns	Mathias
#3 (37)	Fundamental GPU Algorithms (Reduce, Scan, Histogram)	Udacity: Lesson 3 - Fundamental GPU Algorithms (Reduce, Scan, Histogram)	Frederik
#4 (38)	Fundamental GPU Algorithms (Applications of Sort and Scan)	Udacity: Lesson 4 - Fundamental GPU Algorithms (Applications of Sort and Scan)	Morten
#5 (39)	Exercises related to theory	Exercises 1-4	
#6 (40)	Optimizing GPU Programs	Udacity: Lesson 5 - Optimizing GPU Programs	
#7 (41)	Parallel Computing Patterns (Part A)	Udacity: Lesson 6.1 - Parallel Computing Patterns Part A	
#8 (43)	Parallel Computing Patterns (Part B) + structure of report	Udacity: Lesson 6.2 - Parallel Computing Patterns Part B	
#9 (44)	Additional Parallel	Udacity: Lesson 7.1 - Additional Parallel	

	Computing Topics + Dynamic Parallelism	Computing Topics + Lesson 7.2 - Dynamic Parallelism	
#10 (45)	Exercises related to theory	Exercises	
#11 (46)	Project work		
#12 (47)	Project work		
#13 (48)	Project work		
#14 (49)	Student presentation related to project work		



