

Parallel and Distributed Computing

Alberto Paoluzzi – Lecture 16 – Multi-Threading

Fri 08-04-2022

Julia High Performance: **Threads**

From: Sengupta, Avik: [Julia High Performance: Optimizations, distributed computing, multithreading, and GPU programming with Julia 1.0 and beyond](#), 2nd Edition. Packt Publishing. Kindle Edition.

- 1 Julia High Performance: Chapter 9:
- 2 Julia High Performance: Threads and their life cycle:
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Section 1

Julia High Performance: Chapter 9:

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(Concurrent Programming with) Threads

① Threads

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Threads: Introduction

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- 4 However, as you continue your journey as a Julia developer, be on the lookout for **these to be fixed** in **future versions**.
- 5 So, in this chapter, we **show how to write multithreaded Julia programs** in ways that **guarantee** both **safety** and **high performance**.

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 - b. you need to be careful in accessing global state.
 - c. you need to know of any other threaded libraries within your environment.
- 2 With those caveats, however, you can achieve impressive performance gains when using threads with Julia.

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- 8 Safe use of Finalizers