## README

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# 1 Functional programming in C++

Functional programming means coming back closer to what **variables** and **functions** are in **mathematics**: the former, immutable data, and the latter, transformations from an input into an output.

In this presentation, we will see how to modify our C++ programs to approach the functional paradigm, by the way formalizing already known good practices, and facilitating parallel and distributed execution.

#### 1.1 To be continued

- 1. Adopt a functional style in old C++.
- 2. Lambda functions.
- 3. Higher-order functions.
- 4. A brief introduction to the algebra of types.
- 5. Towards monads.
- 6. C++20 functional pipes with Ranges

### 1.2 Inspirations

- John Carmack & Arzar : Programmation fonctionnelle en C++
- Ivan Cukic : Functional Programming in C++
- Bartosz Milewski : Category Theory for Programmers

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