

# Programmation fonctionnelle

## 1 Introduction: Aperçu du paradigme fonctionnel

Programmation fonctionnelle = programmation applicative = programmation uniquement avec des fonctions et des valeurs

Paradigme radicalement différent du paradigme traditionnel (impératif):

- Tous les calculs sont faits uniquement en évaluant des expressions (au sens "pur", mathématique du terme, c'est-à-dire sans effet de bord)

⇒ Pas de notion de variable modifiable

⇒ Pas de procédures, pas d'objets

Slide 1

Programme impératif = programme caractérisé par un état implicite qui est modifié par des instructions avec des effets de bord:

```
fact = 1;  
for(i = 1 to n)  
    fact = fact * i;
```

Forme générale d'un programme fonctionnel = série de déclarations (constantes et fonctions) + une expression à évaluer

```
ident_1 = ...  
ident_2 = ...  
...  
ident_k = ...  
expression_a_evaluer
```

Note: une fonction, au sens mathématique du terme, n'est qu'une forme spéciale de constante!!

Slide 2

# Informatique Sciences Numique Programmation Fonctionnelle

**Éric Leclercq**



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