

# CAMPaM Presentation

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# Who am I ?

- Pierre Kelsen
- Professor in Computer Science at the University of Luxembourg since 2000/2003
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# My Research

- Background:
  - Theoretical Computer Science: Parallel graph algorithms, combinatorial algorithms, probabilistic methods
  - Converted to software engineering in early 2000
- Current research interests
  - Foundations of model-driven engineering
  - Software complexity
  - Formal methods

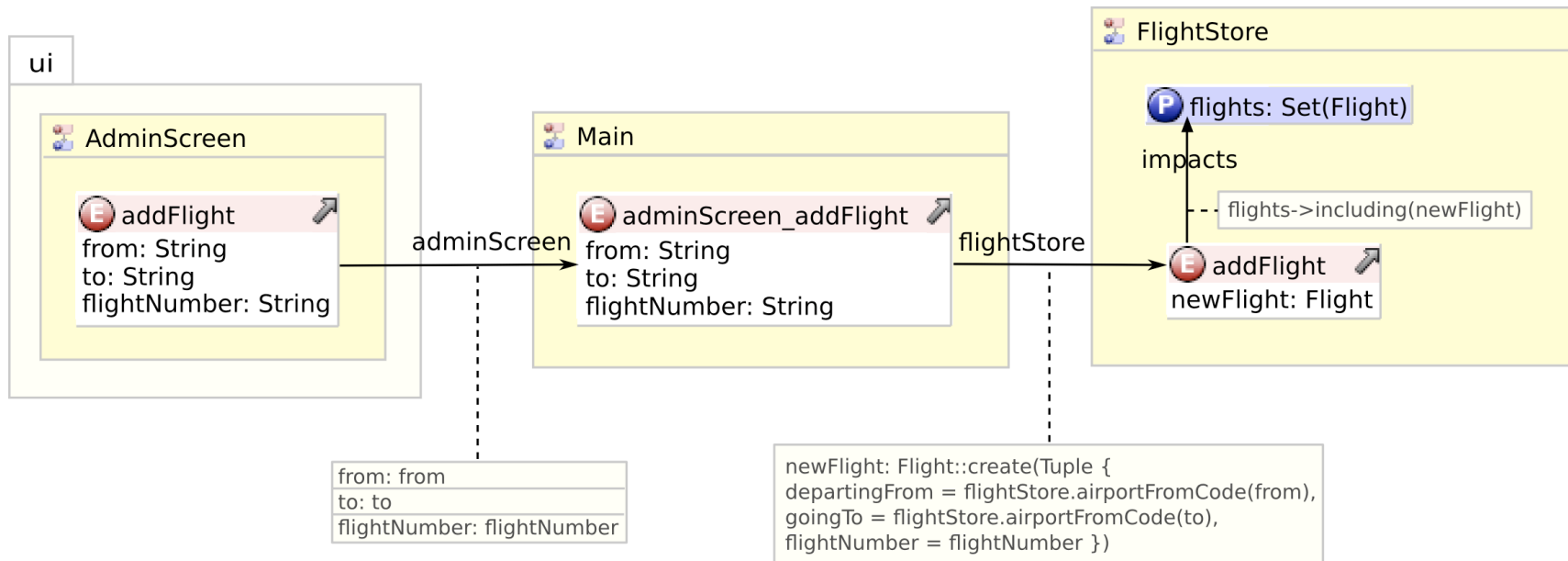
# My Research (2)

- Research within MDE
  - Executable modeling languages
  - Lightweight formal methods, esp. Alloy
  - Complexity of models/modeling languages
  - Multi-paradigm modeling
- Main research goal
  - Science of modeling/meta-modeling

# My Research (3)

- Contribution to MDE
  - Main complexity of models resides in behavior
  - Traditional approaches to modeling behavior don't work well (e.g., action languages) or apply to restricted cases only (e.g., state charts)
  - EP language: model behavior using graphs and side-effect free functions – makes behavior amenable to mathematical analysis
  - Supported by a tool - DEMOCLES

# My Research (4)



# Expectations

- What do I expect from the workshop
  - Collaborations
  - Progress on specific research questions
    - What are the existing approaches to multi-paradigm modeling? Can we improve on them?
    - How important are model transformations?
    - Can we use formal methods to better understand modeling/meta-modeling questions?