PLASMA

Programming Languages And SysteMs (A) Group

February 15, 2018

1. Advance programming languages, methods and tools, with special attention to radical alternatives.
2. Address both the principles underlying new kinds of languages and technologies for system's design and programming.
3. Implement and use these new technologies effectively.

Colin Runciman, Michael Walker & (formerly) Rudy Braquehais:

- Curiosity-driven research in all aspects of functional programming.
- Advancing software technology based on functional languages.
- Recently, verification and testing of functional programs.

Detlef Plump, Gia Wulandari & Timothy Atkinson:

- Development of GP 2, a graph programming language.
- Visual and rule-based computing on graphs.
- Verifying GP 2 programs.
- Applications of GP 2.

Jeremy Jacob & Abdulrazaq Abba:

- Formal approaches to verifying systems & identifying threats.
- Recent: Detecting and analyzing potential attacks on cloud-based systems (Cloud-Cover).
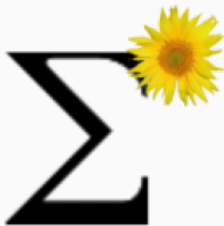- Recent: Collaboration on RoboCalc (a calculus for software engineering of autonomous robots).

Matt Windsor & (formerly) Mike Dodds:

- Development of Starling, a tool for checking correctness of concurrent programs.
- Reasoning about hoare-logic style assertions such as safety properties.

- You are working with functional programs.
- You are manipulating a topology.
- You want to verify (something) formally.

Thanks for listening!

https://github.com/UoYCS-plasma