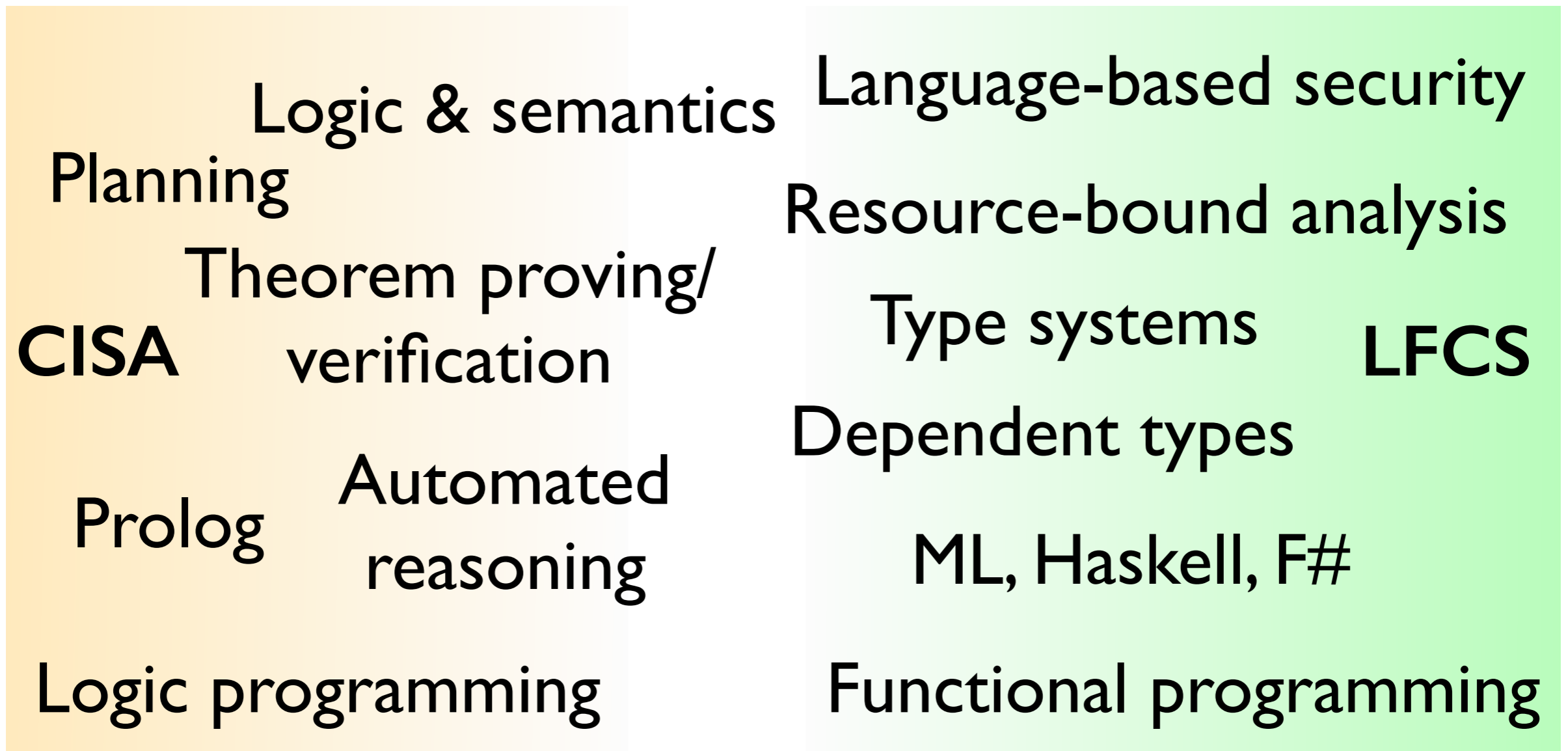


Programming

Languages

Research

Programme



"Foundational" PL has been an area of strength for Edinburgh since the 70s/80s with activity centered in CISA and LFCS (frequently cross-fertilizing) and numerous clubs/research groups active at different times. However, in 2012-2013 there was no longer an organised activity so we formed the *Programming Languages Interest Group* (PLInG).

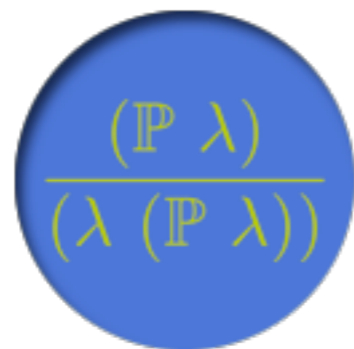
CISA	verification	Type systems	LFCS
Prolog	Automated reasoning	Dependent types	ML, Haskell, F#
Logic programming		Functional programming	
Parallel programming	Real-world programming	DSLs	Compilers
High-performance computing	C/C++, Scala	Optimisation	
	ICSA	Multicore, GPU	

Over the last few years we have broadened the scope to include compilers, optimization and parallel programming (cf. ICSA, Pervasive Parallelism CDT)
 Recently, this led to the creation of the School's Programming Languages Research Programme

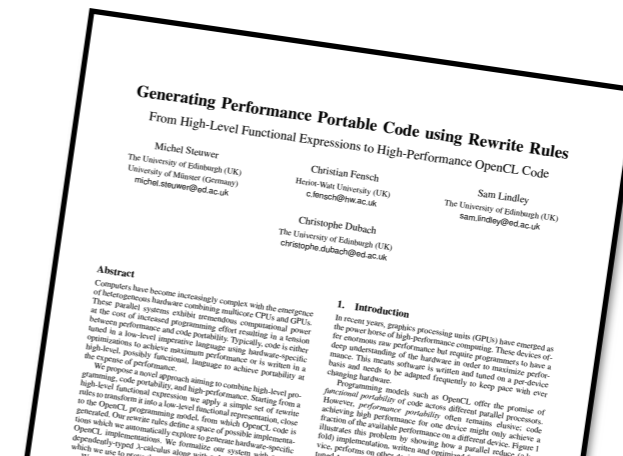
Research collaborations between different parts of Informatics have been strengthened by PLInG and already led to publications & good PhD student interactions



Security: language-based security, analysis of Ethereum language used in blockchain systems, ...?



Machine learning: better programming abstractions/optimisations for data science, probabilistic programming, ...?



We hope the School's recognition of the PL Research programme will also help spark new projects or collaborative activities



