The Coq proof assistant

时　间： **2008年4月7日-11日**　上午 9：00 – 12：00

地　点： FIT 1-415　(4月7日，4月11日)

　　　　FIT 1-401　(4月8日，4月9日，4月10日)

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Coq Abstract：

Coq is a formal proof management system: a proof done with Coq is mechanically checked by the machine. In particular, Coq allows: to define functions or predicates, to state mathematical theorems and software specifications, to develop interactively formal proofs of these theorems, to check these proofs by a relatively small certification "kernel". The current stable version of Coq is the 8.1. It is available for Unix (including Mac OS X) and Windows 95/98/NT/XP systems.

Schedule：

Lecture 1: (4.7)

Pure calculus of constructions, functions with dependent type.

Lecture 2: (4.8)

Inductive first-order data-structures and structural recursion.

Lecture 3: (4.9)

Dependent inductive types and representation of logical connectives.

Lecture 4: (4.10)

Mixing informative and logical types: strongly specified programming in Coq

Lecture 5: (4.11)

General forms of recursion: well-founded induction, ad-hoc predicates, co-recursion.

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