February 27, 2014 Outline

Reading: §16; paper [HS97]  

Assignment due: Homework #3, due March 4, 2014  
Project: due March 21, 2014

1. Entropy-based analysis  
   a. Flow of information from $x$ to $y$  
   b. Implicit flow of information

2. Non-lattice policies  
   a. Transitivity  
   b. Information flow policy  
   c. Confinement flow model

3. Transitive non-lattice policies  
   a. Quasi-ordered sets

4. Non-transitive policies  
   a. Dual mappings  
   b. Theorem: a dual mapping from a reflexive information flow policy into an ordered set is order-preserving

5. Compiler-based flow mechanisms  
   a. Scalar declarations  
   b. Array declarations  
   c. Assignment statements  
   d. Compound statements  
   e. Conditional statements  
   f. Iterative statements  
   g. Goto statements  
   h. Procedure calls