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Security

HPC

Other Interests

Security related interests

Sandboxing

       Protecting environments

       Applications: Grid/cloud computing

                              Viruses and worms

Group authorization

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Security related interests

Digital watermarking

Integrity of digital objects

MPEG-based for video

Audio

Techniques for verification

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Security related interests

Statistical database security

  Inference control: Increasingly more important

  Randomizing

    works well for averages

    selector function??

Other interests:

  Access control

  Authorization systems

  E-voting

HPC

Input/output management

Compiler-driven, rather than OS-centric

Compilers know much more about the
program than the OS will ever know

Can reuse techniques from vectorization
and parallelization (dependence analysis)

Scheduling algorithms for VLIW

Memory management

Other research interests

Formal language theory

Towers of Hanoi

Transitioning from algorithms to software

Societal aspects of computing, including

privacy,

viruses and worms,

computer crime,

surveillance (legal and illegal)

Six books

Nine book chapters

Over 160 refereed papers

       (more than half together with students)

17 Ph. D.s graduated

Over 100 M. S. Theses supervised

Faculty member at UH since 1979