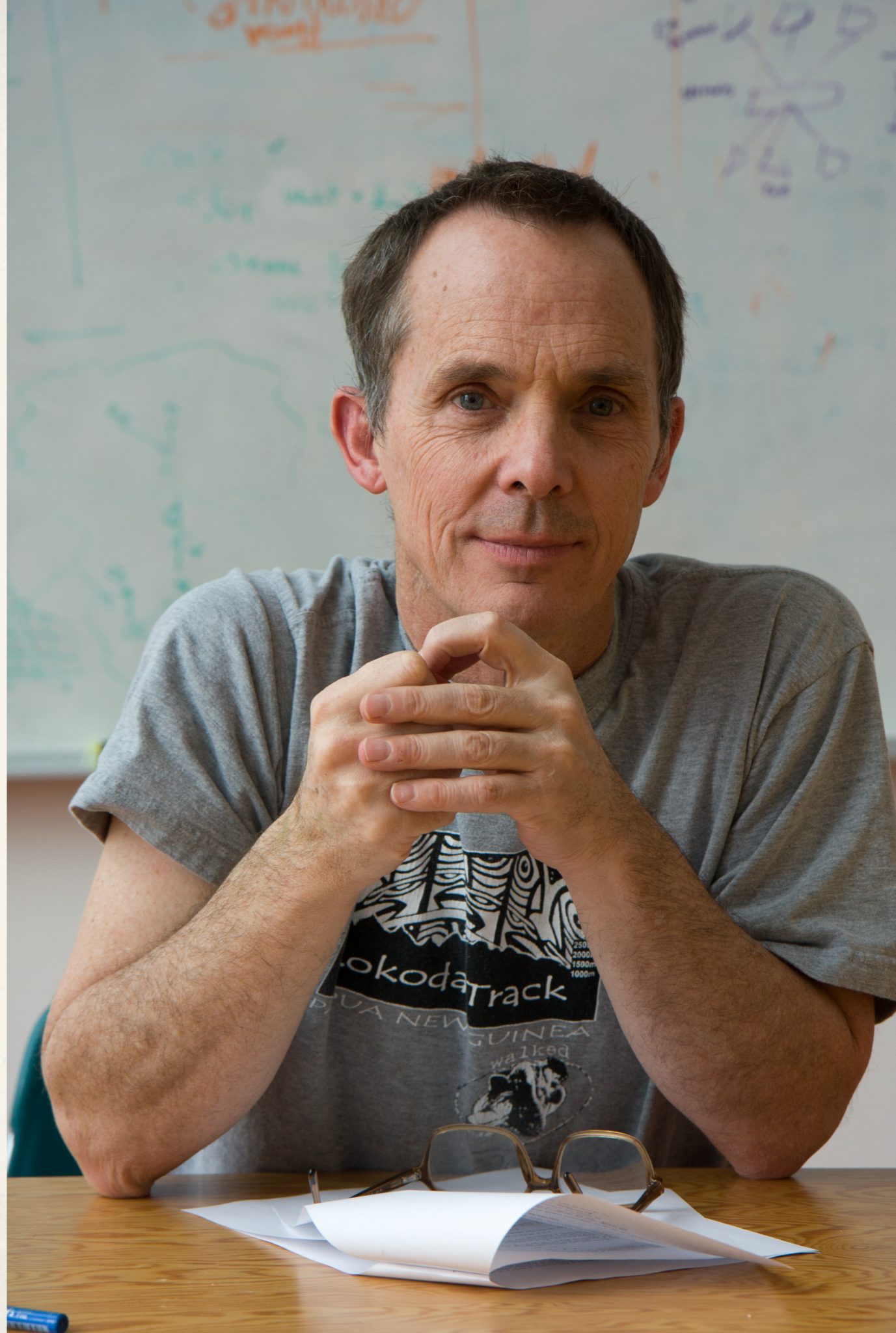


Morgan:

A Suitable Case for Treatment

Peter Höfner

Rob van Glabbeek



First Things First

“Birthday? My dear child, this is NOT a birthday party”
“Of course not. This is an unbirthday party”

L. CARROLL



Programme

10:30-11:15	Rob van Glabbeek Peter Höfner	Morgan! A Suitable Case for Treatment
11:15-11:45	Mingsheng Ying	Verification of Quantum Program
11:45-12:15	Ken Robinson	In search of the White Rabbit

Lunch Break

13:30-14:00	Annabelle McIver	Carroll Morgan ... That is Your Life
14:00-14:30	Alwen Tiu	Characterisations of Testing Preorders for a Finite Probabilistic π -Calculus
14:30-15:00	Andrew Santosa	Path-Sensitive Backward Slicing
15:00-15:30	tba	tba

Reception



Festschrift Presentation

Celebrating the 60th Birthday of Carroll Morgan

a short summary,
number of papers,
census,

add quotes from emails

AAcknowledgments

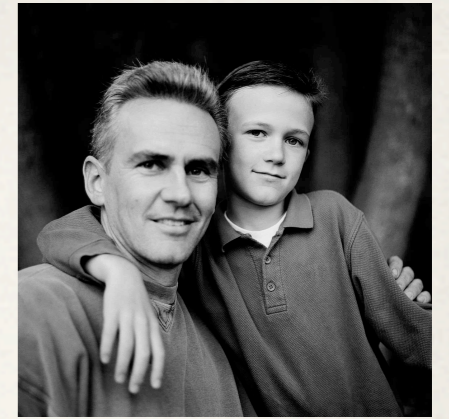


Laws of Programming

“Algebra is generous; she often gives more than is asked for.” (J. D'ALEMBERT)



In Praise of Algebra



- Sir Tony Hoare and Stephan van Staden
- survey of well-known algebraic logics
 - sequential and concurrent programming
 - relationship to
 - concurrent separation logic
 - Milner transitions
 - Back/Morgan refinement



Towards a Linear Algebra of Programming



-
- José Nuno Olivera
 - Extension of Algebra of Programming
 - probabilistic functions
 - matrix-based approach
 - allows pointfree reasoning for probabilistic programming



Dijkstra, Floyd and Warshall meet Kleene



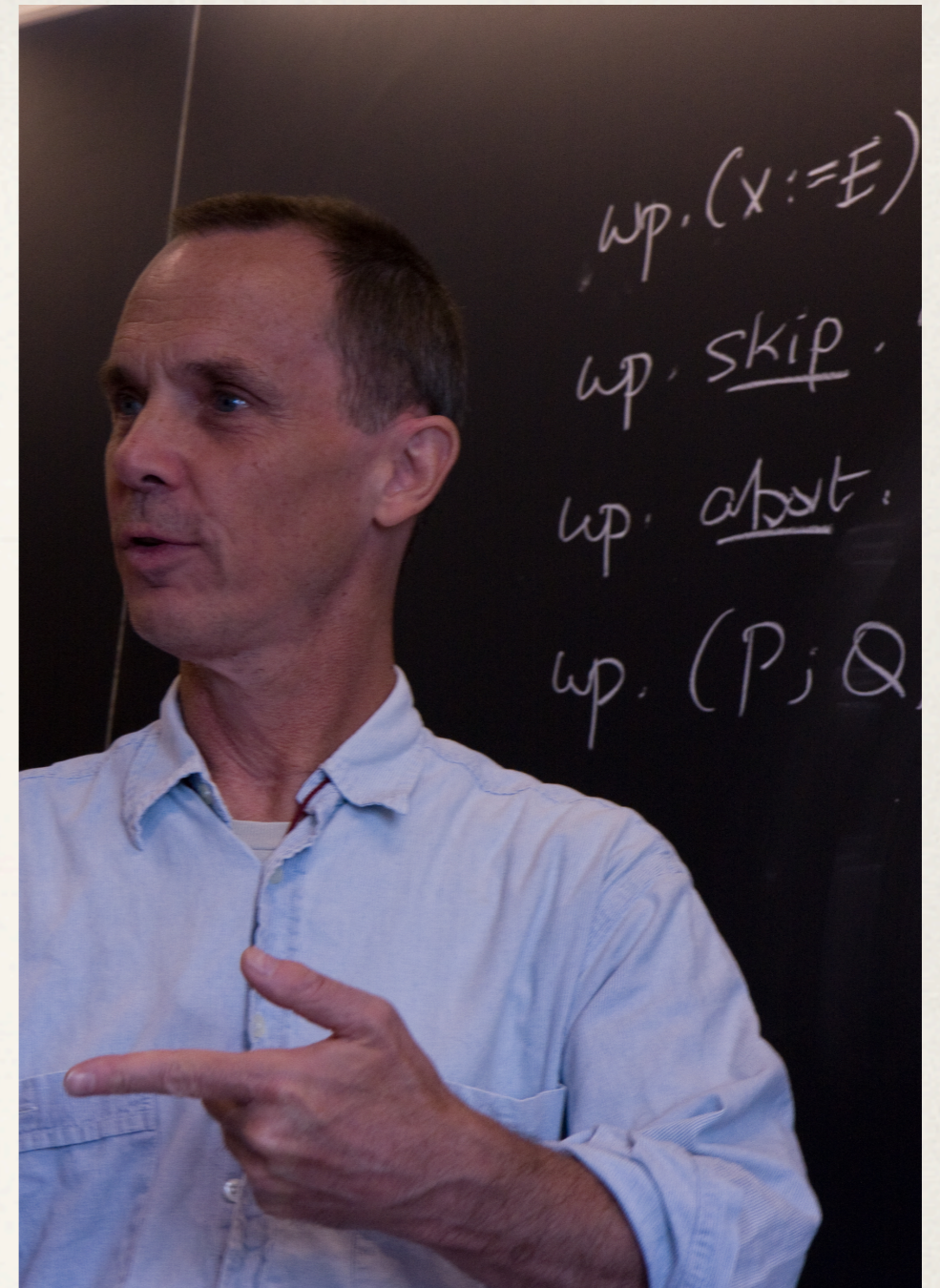
- Peter Höfner and Bernhard Möller
- algebraic light on shortest path algorithms
 - combining shortest path with Kleene algebra
 - pure algebraic versions of
 - Dijkstra's algorithm
 - Floyd/Warshall algorithm

Layered Reasoning for Randomized Distributed Algorithms



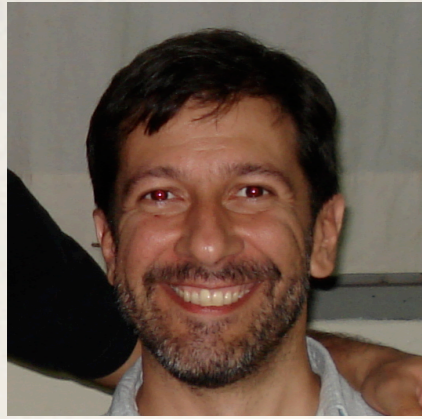
- Mani Swaminathan, Joost-Pieter Katoen and Ernst-Rüdiger Olderog
- Layered separation in compositions for probabilistic automata
 - analysis of mutual exclusion algorithm
 - complementing an approach by Carroll et al.





How to Brew-up Refinement Order

“The whole of science is nothing more than refinement of everyday thinking” (A. EINSTEIN)



Reconciling Real and Stochastic Time: the Need for Probabilistic Refinement



- Jasen Markovski, Pedro R. D'Argenio, Jos. C.M. Baeten and Eric R. de Vink
- Extension of ACP-style discrete-time process theory
 - stochastic delay
 - race conditions by conditionally-distributed unit delay





Stepwise Refinement of Heap-manipulating Code in Chalice



- K. Rustan. M. Leino and Kuat Yessenov
- automated tool support for refinement
 - view of heap-manipulating code
 - model of memory permission
 - use power of SMT solvers

Using Refinement Calculus Techniques to Prove Linearizability



- Bengt Jonsson
- rules for refinement of multi-threaded shared variable programs
 - strengthening of atomicity refinement
 - application to linearizability of
 - Treiber's concurrent stack algorithm
 - Michael and Scott's concurrent queue algorithm

External and Internal Choice with Event Groups in Event-B

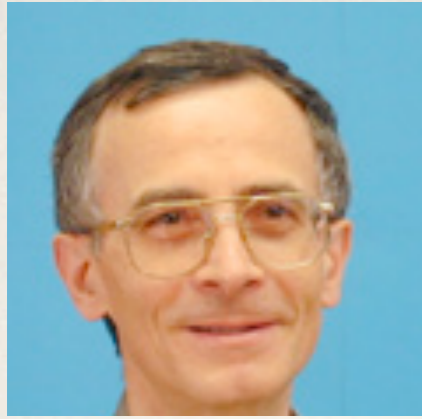


- Michael J. Butler
- TBD

Refinement of Ignorance in Sequential Programs

“The more we know, the more we feel our ignorance; the more we feel how much remains unknown” (Sir H. DAVY)





Constraint-Based Correctness Proofs for Logic Program Transformation



- Alberto Pettorossi, Maurizio Proietti and Valerio Senni
- tbd





On Termination and Invariance for Faulty Channel Machines



- Patricia Bouyer, Nicolas Markey, Joël Ouaknine
Philippe Schnoebelen and James Worrell



- tba



On Building Cyclic and Shared Structures in Haskell



-
- Richard S. Bird



Filter-embedding Semiring Fusion for Programming with MapReduce

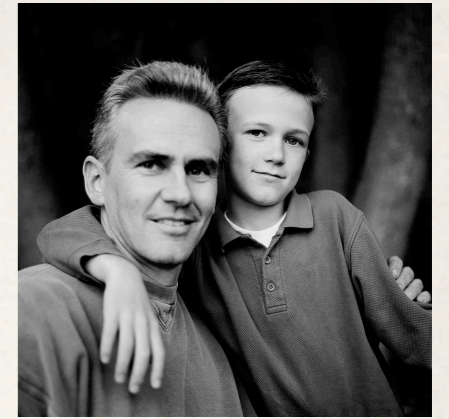


- Kento Emoto, Sebastian Fischer and Zhenjiang Hu
- tba





The Safety-Critical Java Model Formalised



- Ana Cavalcanti, Andy Wellings and Jim Woodcock

- tbd

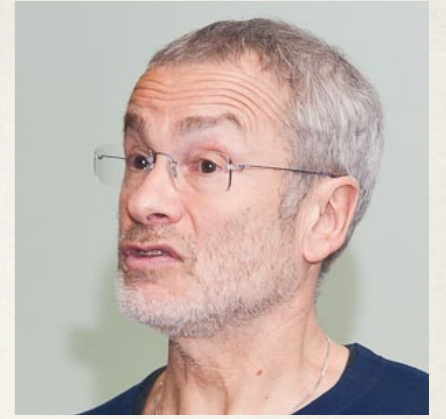


The

Thousand-and-one Cryptographers



Deterministic Concurrent Strategies



-
- Glynn Winskel
 - tba



Probabilistic Verification of Herman's Self-stabilisation Algorithm



- Marta Kwiatkowska, Gethin Norman and David Parker
- tbd

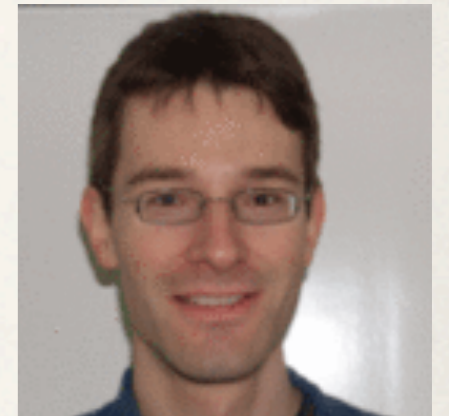




Three Tokens in Herman's Algorithm

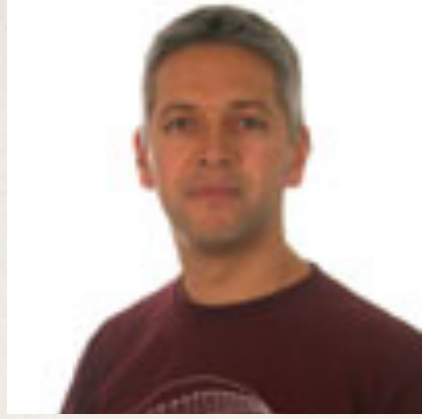


- Stefan Kiefer, Andrzej S. Murawski, Joël Ouaknine, Björn Wachter and James Worrell
- tbd



Security, Probability
and Nearly Fair Coins
in the Cryptographers' Café

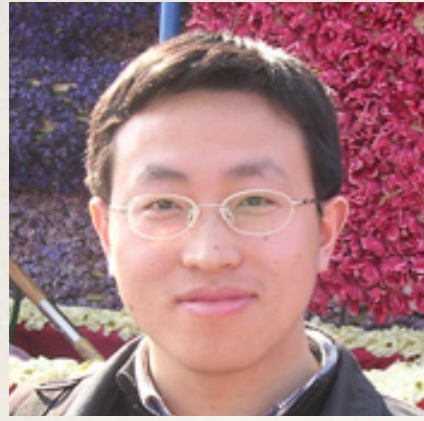




Using Schedulers to Test Probabilist Distributed Systems



-
- Robert M. Hierons and Manuel Núñez
 - tbd



Characterisations of Testing Preorders for a Finite Probabilistic π -Calculus



- Yuxin Deng and Alwen Tiu
- tbd



Probabilistic May/Must Testing: Retaining Probabilities by Restricted Schedulers



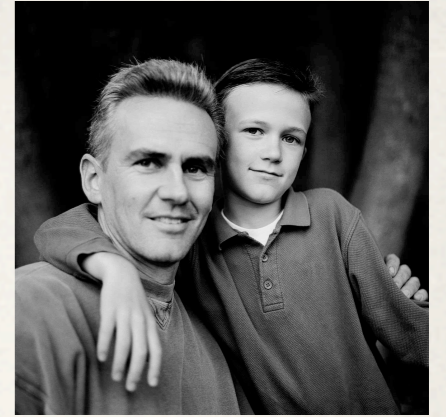
- Sonja Georgievska and Suzana Andova
- tbd

Exploring Probabilistic Bisimulations Part I



- Matthew Hennesy
- tbd

Architectural Refinement and Notions of Intransitive Noninterference

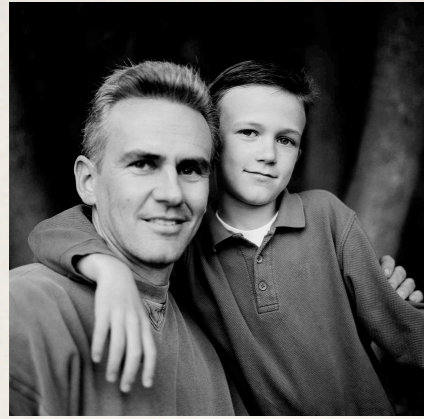


- Ron van der Meyden
- tbd

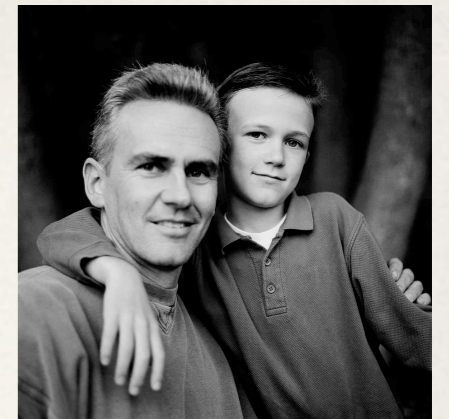
A Secure Voting Scheme Based on Rational Self-interest



-
- Jayadev Misra
 - tbd

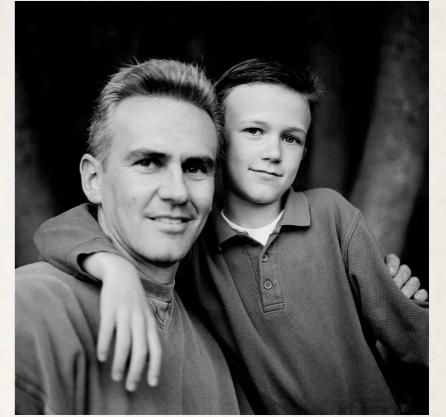


Checking Non-Interference in Timed CSP



- Bill Roscoe and Huang Jian
- tbd

Security Invariants in Discrete Transition Systems

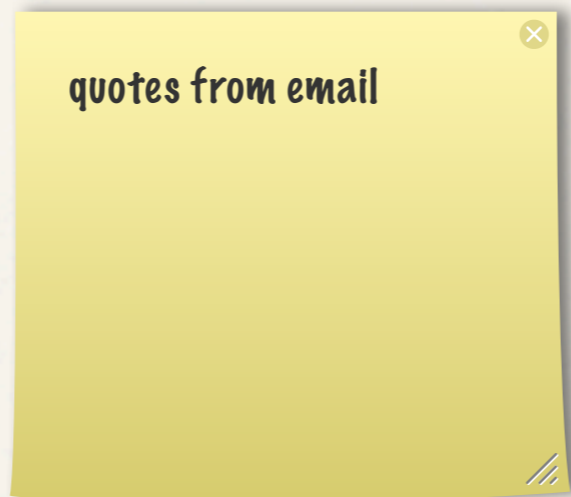


- Thai Son Hoang
- tbd

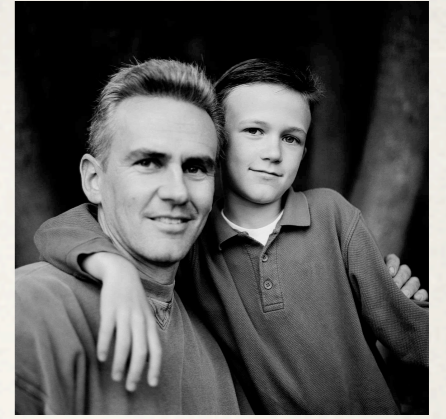


Sums and Lovers

Reactions



Eiiti Wada



I know Carroll long time since his Oxford days with long hair. He will be 60! In Japan, as well as in China, we have 60 names for years, and 60th birthday is celebrated especially because the year name returns to the birth year's.

Unfortunately, I cannot come to Sydney. I am 80 years old now. So please tell Carroll my congratulations and best wishes on a suitable situation.

Jayadev Misra



Dear Carroll:

Not many of us survive in academia up to this point; the wear and tear shows up in the results at around now. You are still a smoothly running machine, delighting us all with your elegant performance in navigating through difficult concepts of computer science. You are inspiration to us all.

It has been a pleasure and privilege knowing you.

Last Things Last

“But I don't want to go among mad people,” Alice remarked.

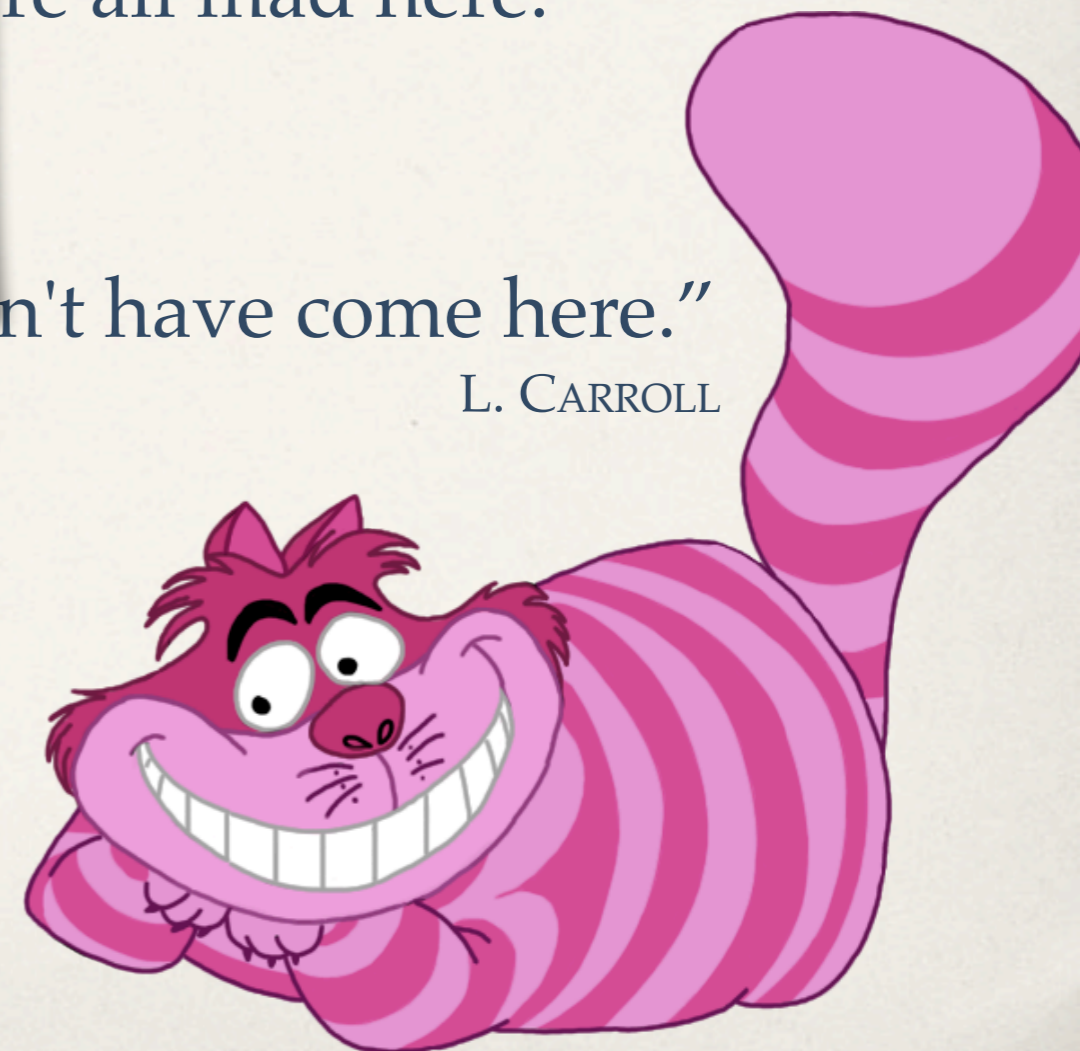
“Oh, you can't help that,” said the Cat, “we're all mad here.”

“I'm mad. You're mad.”

“How do you know I'm mad?”

“You must be,” said the Cat, “because you've come here.”

L. CARROLL



Hand over Festschrift