6th Conference on
Real Numbers and Computers
November 15-17 2004, Schloß Dagstuhl, Germany
Preliminary program

Monday, November 15:

9:00 Opening of the conference
9:30 **Stefan Schirra** (invited talk), Real Numbers and Robustness in Computational Geometry

10:30 Coffee break

11:00 **Sylvie Boldo**, Bridging the gap between formal specification and bit-level floating-point arithmetic
11:30 **Daumas, Melquiond**, Generating formally certified bounds on values and round-off errors

12:00 Lunch break

14:00 **Xizhong Zheng**, On the hierarchy of Delta_02-numbers
14:30 **K. Tadaki**, An extension of Chaitin's halting probability Omega to measurement operator in infinite dimensional quantum system
15:00 **Cagnard, Simonnet**, Automata, Borel functions and real numbers in Pisot basis

15:30 Coffee break

16:00 **Vincent Lefevre,** The generic multiple-precision floating-point addition with exact rounding (as in the MPFR library)
16:30 **Fousse, Schmitt**, A comparison of polynomial evaluation schemes
17:00 **Robert Rettinger**, A fast algorithm for Julia sets of hyperbolic rational functions

Tuesday, November 16:

9:00 **Benno Fuchssteiner** (invited talk), New ideas and results for solving Differential equations symbolically
10:00 **Graillat, Langlois**, A comparison of real and complex pseudozero sets for polynomials with real coefficients

10:30 Coffee break

11:00 **Open Session**

12:00 Lunch break

14:00 **Excursion**

Wednesday, November 17:

9:00 **Simon Plouffe**, (invited talk), A survey of Integer Relations algorithms and rational numbers
10:00 **Michel Hack**, On intermediate precision required for correctly-rounding decimal-to-binary floating-point conversion

10:30 Coffee break

11:00 **Peter Markstein**, Software division and square root using Goldschmidt's algorithm
11:30 **de Dinechin, Loirat, Muller**, A proven correctly rounded logarithm in double-precision
12:00 **Closing of the conference**
12:15 Lunch