



Sixth International Workshop on
Computability and Complexity in Analysis

**CCA
2004**

August 16–20, 2004, Lutherstadt Wittenberg, Germany

Program

Tuesday, August 17

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- 08:00 Breakfast at Leucorea*
09:15 Welcome Session
09:30 **Yongcheng Wu and Klaus Weihrauch**
A Computable Version of the Daniell-Stone Theorem on Integration and Linear Functionals
10:00 **Hiroyasu Kamo**
Effective Dini's Theorem on Effectively Compact Metric Spaces
10:30 Coffee Break
11:15 **Douglas Bridges and Luminița Viță**
A General Constructive Proof Technique
11:45 **Branimir Lambov**
Rates of Convergence of Recursively Defined Sequences
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- 12:15 Lunch Break
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- 14:00 **Abbas Edalat, Dirk Pattinson and André Lieutier**
Domain Theory and Multi-Variable Calculus
14:30 **Akitoshi Kawamura**
Type-2 Computability and Moore's Recursive Functions
15:00 Coffee Break
15:30 **Izumi Takeuti**
Transition Systems over Continuous Time-Space
16:00 **Robert Kenny**
Orbit Complexity and Entropy for Group Endomorphisms
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- 16:30 Break
17:30 Informal Talks
18:30 Supper at Leucorea*
20:00 Cinema (a CCA special presentation of the movie "Luther")

Wednesday, August 18

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- 08:00 Breakfast at Leucorea*
09:30 **Arthur W. Chou and Ker-I Ko**
On the Complexity of Finding Paths in a Two-Dimensional Domain II: Piecewise Straight-Line Paths
10:00 **Mark Braverman**
Hyperbolic Julia Sets are Poly-Time Computable
10:30 Coffee Break
11:15 **Robert Rettinger**
A Fast Algorithm for Julia Sets of Hyperbolic Rational Functions
11:45 **Daren Kunkle and Matthias Schröder**
Some Examples of Non-Metrizable Spaces Allowing a Simple Type-2 Complexity Theory
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- 12:15 Lunch Break
14:00 Guided Tour
19:00 Barbecue (if weather permits)

Thursday, August 19

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- 08:00 Breakfast at Leucorea*
09:30 **Victor L. Selivanov**
Variations on Wadge Reducibility
10:00 **Armin Hemmerling**
Hierarchies of Function Classes Defined by the First-Value Operator
10:30 Coffee Break
11:15 **Yoshiki Tsujii, Mariko Yasugi and Takakazu Mori**
Sequential Computability of a Function –Diagonal Space and Limiting Recursion–
11:45 **Vasco Brattka**
On the Borel Complexity of Hahn-Banach Extensions
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- 12:15 Lunch Break
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- 14:00 **Klaus Weihrauch and Ning Zhong**
An Algorithm for Computing Fundamental Solutions
14:30 **Alexander Raichev**
Relative Randomness and Real Closed Fields
15:00 Coffee Break
15:30 **Xizhong Zheng and Robert Rettinger**
A Note On the Turing Degrees of Divergence Bounded Computable Reals
16:00 Closing of the Conference

* Supper and breakfast at Leucorea is also served on Thursday evening and Friday morning, respectively.