

**Analysis on Fractals and Graphs Workshop at
Tsinghua Sanya International Mathematics
Forum (TSIMF)**

DECEMBER 26-30, 2016

SANYA, CHINA

Conference Schedule

December 26, Monday

08:30-08:50 Opening Ceremony
(Room 110)

08:50-09:00 Group Photo

09:30-12:00 Invited Talks I1

Chair: Jacques PEYRIÈRE (Room 110)

09:10-10:00 Ka-Sing LAU, Critical exponents of Dirichlet forms on self-similar sets

10:00-10:30 Tea Break

10:30-11:20 Teturo KAMAE, Randomness criterion – revisited

12:00-13:30 Lunch (Restaurant)

13:30-14:50 Invited Talks I2

Chair: Zhixiong Wen (Room 110)

14:00-14:50 Daowei MA, Strict Whitney arcs and t -quasi arcs

14:50-15:10 Tea Break

15:10-17:40 Contributed Talks (1) & (2)

(1), Chair: Bin XIE (Room 110)

15:10-15:35

Qinghui LIU, On union of spectrum for Sturm Hamiltonian

15:40-16:05	Fumihiko NAKANO , Density of states and level statistics for 1d Schrödinger operators
16:10-16:35	Junjie MIAO , Assouad dimension of some self-affine fractals
16:35-16:45	Tea Break ,
(1), Chair: Qirong DENG (Room 110)	
16:45-17:10	Hua QIU , Higher order tangents and higher order Laplacians on symmetric p.d.f. fractals
17:15-17:40	Shilei KONG , Random walks and induced Dirichlet forms on metric measure spaces
(2), Chair: Hao LI (Room 121)	
15:10-15:35	Shengyou WEN , On the topological classification of fractal squares
15:40-16:05	Wen WU , On linear independence measures of the values of Mahler functions
16:10-16:35	Kan JIANG , Lipschitz equivalence of self-similar sets with exact overlaps
16:35-16:45	Tea Break ,
(2), Chair: Meifeng DAI (Room 121)	
16:45-17:10	Masamichi YOSHIDA , Odometer Representation of 3-Interval Exchange, revisited
17:15-17:40	Masahiro MIZUTANI , Maps related to the map
18:00-19:30 Dinner (Restaurant)	

December 27, Tuesday

08:30-10:20 Invited Talks I3

Chair: Yang WANG (Room 110)

08:30-09:20 Esa Järvenpää, Porosities of fractal percolation

09:30-10:20 Maarit Järvenpää, Fractal percolation is unrectifiable

10:20-10:50 Tea Break

10:50-11:45 Contributed Talks

Chair: Weixiao SHEN (Room 110)

10:50-11:15 Hiromi EI, Stepped surfaces and Rauzy fractals related to minimal polynomials of hyperbolic cubic unit integers

11:20-11:45 Jun-ichi TAMURA, p-adic substitutions and Rauzy fractals

12:00-13:30 Lunch (Restaurant)

14:00-14:50 Invited Talks I4

Chair: Yong LIN (Room 110)

14:00-14:50 Aihua FAN, Some questions related to weighted Birkhoff averages

14:50-15:10 Tea Break

15:10-17:40 Contributed Talks (1) & (2)

(1), Chair: Bo TAN (Room 110)

15:10-15:35

Zuoling ZHOU, A proof of the conjecture on twin primes

15:40-16:05

Lingmin LIAO, Diophantine approximation properties of powers of real numbers

16:10-16:35

Baowei WANG, Dynamical dimension transference principle for dynamical Diophantine approximation

16:35-16:45

Tea Break,

(1), Chair: Xinrong DAI (Room 110)

16:45-17:10

Yuan LIU, A variant of Mandelbrot cascade

17:15-17:40

Jianlin LI, Spectrality of digit sets and spectral self-affine measures

(2), Chair: Yuanling YE (Room 121)

15:10-15:35

Jingzhi YAN, A local generalization of Poincaé-Birkhoff theorem

15:40-16:05

Fumiaki SUGISAKI, Extension of Cantor minimal systems and their dimension groups

16:10-16:35

Naoya SUMI, Topological conditions for the uniqueness of Sinai-Ruelle-Bowen measures

16:35-16:45

Tea Break,

(2), Chair: Ying XIONG (Room 121)

16:45-17:10

Jin CHEN, On the k -abelian complexity of the Cantor sequence

17:15-17:40

Jiemeng ZHANG, On the regular sum-free sets

18:00-19:30 Dinner (Restaurant)

December 28, Wednesday

08:30-10:20 Invited Talks I5

Chair: Weiyi SU (Room 110)

08:30-09:20 Christoph BANDT, Some fractal tilings and measures

09:30-10:20 Károly SIMON, Hausdorff dimension of certain self-affine attractors

10:20-10:40 Tea Break

10:40-12:05 Contributed Talks

Chair: Jun WU (Room 110)

10:40-11:05 Jiaxin HU, The Davies method for heat kernel upper bounds of regular Dirichlet forms

11:10-11:35 Jingli REN, Inhomogeneous percolation on Bethe lattices

11:40-12:05 Makoto MORI, On Random Number generated by Dynamical Systems

12:05-13:30 Lunch (Restaurant)

13:30-17:30 Free Discussion

September 29, Thursday

08:30-10:20 Invited Talks I6

Chair: Makoto MORI (Room 110)

08:30-09:20 Shigeki AKIYAMA, Rotational beta expansion and self-similar tiling

09:30-10:20 Bobo HUA, Curvature dimension conditions on graphs and related problems

10:20-10:50 Tea Break

10:50-11:45 Contributed Talks

Chair: Xinhan DONG (Room 110)

10:50-11:15 Hui RAO, Lipschitz equivalence of fractals and finite state automaton

11:20-11:45 Sze-Man NGAI, Spectral asymptotics of one-dimensional fractal Laplacians in the absence of second-order identities

12:00-13:30 Lunch (Restaurant)

14:00-14:50 Invited Talks I7

Chair: Min WU (Room 110)

14:00-14:50 Wen HUANG, Mobius disjointness for topological models of ergodic systems with discrete spectrum

14:50-15:10 Tea Break

15:10-17:40 Contributed Talks (1) & (2)

(1), Chair: Qiuli GUO (Room 110)

15:10-15:35 Wenxia LI, Intersection of a Cantor set with its translation

15:40-16:05 Huojun RUAN, Some Progresses on the Lipschitz equivalence of self-similar sets

16:10-16:35 Yinshan CHANG, Capacity of range of SRW

16:35-16:45 Tea Break,

(1), Chair: Ting ZHONG (Room 110)

16:45-17:10

Sanguo ZHU, Asymptotic quantization error for Markov-type measures

17:15-17:40

Yongxin GUI, Multifractal analysis of divergence points of frequency of digits in Bedford-McMullen self-affine carpets

(2), Chair: Kui YAO (Room 121)

15:10-15:35

Hiroshi FUJISAKI, A Realization of Optimum Binary Spreading Sequences of Markov Chains Based on Discretized β -transformations

15:40-16:05

Bing LI, Hausdorff dimensions of self-affine sets and nonconformal repellers

16:10-16:35

Yueli YU, On the digits distribution of β and $(-\beta)$ expansions

16:35-16:45

Tea Break,

(2), Chair: Yumei XUE (Room 121)

16:45-17:10

Asaki SAITO, p -adic continued fractions and Lagrange's theorem

17:15-17:40

Shin-ichi YASUTOMI, On multidimensional p -adic continued fraction

18:00-19:30 Dinner (Restaurant)

December 30, Friday

08:30-10:20 Invited Talks I8

Chair: Zhiying WEN (Room 110)

09:00-09:50 Yimin XIAO, Macroscopic Fractals, Multifractals, and Stochastic Processes

10:00-10:50 Dejun FENG, Lyapunov exponents of non-negative matrices

10:50-11:20 Tea Break