All sessions are held in Lee Shau Kee Building (LSK), CUHK

10 December 2012 (Monday)		
08:30 – 09:15	**Registration** [1/F]	
09:15 – 09:25	**Opening** [LT **7** (1/F)] Professor Nai Ching Henry Wong (Pro-Vice-Chancellor and Dean of Science)	
	Chair: Ka-Sing LAU [LT **7** (1/F)]	
09:25 – 10:05	An analytic inequality and higher multifractal moments *Kenneth J. FALCONER, University of St Andrews*	
10:10 – 10:50	Projection and slicing theorems in Heisenberg groups *Pertti MATTILA, University of Helsinki*	
	Coffee Break/ **Registration** [1/F]	
	Session One [LT1 (LG/F)] Chair: Martina ZÄHLE	Session Two [LT2 (LG/F)] Chair: Stéphane JAFFARD
11:15 – 11:45	Progress on self similar sets and measures with overlaps *Mike HOCHMAN, The Hebrew University*	Harmonic analysis of affine fractals *Palle E.T. JORGENSEN, University of Iowa*
11:50 – 12:20	Bernoulli convolutions and branching dynamical systems *Christoph BANDT, Greifswald, Germany*	Measure of Self-Affine Sets and Associated Densities *Jean-Pierre GABARDO, McMaster University*
	LUNCH	

	Session One [LT1 (LG/F)] Chair: Károly SIMON	Session Two [LT2 (LG/F)] Chair: Örjan STENFLO
14:00 – 14:30	Hausdorff dimension of affine random covering sets in torus *Maarit JÄRVENPÄÄ, University of Oulu*	Analytic continuation of fractal functions *Michael BARNSLEY, Australian National University*
14:35 – 15:05	Dimensions of random affine code tree fractals *Esa JÄRVENPÄÄ, University of Oulu*	Dual Systems of algebraic iterated function systems *Hui RAO, Central China Normal University*
15:10 – 15:40	Iteration of polynomials, functional equations, and fractal zeta functions *Peter GRABNER, Technische Universität Graz*	Hole detection and statistical ranking with homologies of digraphs *Yong LIN, People's University of China*
	Coffee Break [LG/F]	

	Session One [LT1 (LG/F)] Chair: Wenxia LI	Session Two [LT2 (LG/F)] Chair: Alexander TEPLYAEV	Session Three [304 (3/F)] Chair: Jun WU
16:00 – 16:20	Hausdorff dimension of metric spaces and Lipschitz maps onto cubes *Tamás KELETI, Eötvös Loránd University*	Spectral analysis of V-variable Sierpinski gaskets *Uta FREIBERG, University of Siegen*	Inhomogeneous Diophantine approximation with general error functions *Lingmin LIAO, University Paris-East*
16:25 – 16:45	Some progresses on Lipschitz equivalence of self-similar sets *Huojun RUAN, Zhejiang University*	Pseudo-differential operators on fractals *Luke ROGERS, University of Connecticut*	Localized Birkhoff average in beta dynamical systems *Baowei WANG, Huazhong University of Science and Technology*
16:50 – 17:10	Ideal class and Lipschitz equivalent class *Ying XIONG, South China University of Technology*	Hanoi attractors and the Sierpinski gasket: Geometric and analytic convergence *Patricia ALONSO RUIZ, University of Siegen*	Diophantine approximation of the orbit of 1 in beta-transformation dynamical system *Bing LI, South China University of Technology and University of Oulu*

11 December 2012 (Tuesday)

	Chair: Jun KIGAMI [LT7]	
08:30 – 09:10	Regularity of the entropy for random walks on hyperbolic groups *François LEDRAPPIER, University of Notre Dame*	
09:15 – 09:55	Fluctuations of recentered maxima of discrete Gaussian Free Fields on a class of recurrent graphs *Takashi KUMAGAI, Kyoto University*	
10:00 – 10:40	Reflecting random walk in fractal domains *Zhen-Qing CHEN, University of Washington*	
	Coffee Break [1/F]	
	Session One [LT1] Chair: Mike HOCHMAN	Session Two [LT2] Chair: Uta FREIBERG
11:00 – 11:30	Veech problem and its higher order form *Xiangdong YE, University of Science and Technology of China*	A new approach to Gaussian upper bounds for the heat kernel on doubling metric measure spaces *Thierry COULHON, The Australian National University*
11:35 – 12:05	Continuity of subadditive pressure *Pablo SHMERKIN, University of Surrey*	Heat kernels and Green functions on metric measure spaces *Jiaxin HU, Tsinghua University*
	LUNCH	

	Session One [LT1] Chair: Michal RAMS	Session Two [LT2] Chair: Luke ROGERS
14:00 – 14:30	Periodic orbits of discretized rotations Shigeki AKIYAMA, Tsukuba University	Spectral and vector analysis on fractafolds *Alexander TEPLYAEV, University of Connecticut*
14:35 – 15:05	Stable sets in Z^n-systems with positive entropy *Wen HUANG, University of Science and Technology of China*	Diffusive limits on the Penrose tiling *András TELCS, University of Pannonia*
15:10 – 15:40	The dimension of the full nonuniformly hyperbolic horseshoe *Yongluo CAO, Suzhou University*	Geodesic distances and intrinsic distances on some fractal sets *Masanori HINO, Kyoto University*
	Coffee Break [LG/F]	

	Session One [LT1] Chair: Bo TAN	Session Two [LT2] Chair: Tamás KELETI	Session Three [304] Chair: Jiaxin HU
16:00 – 16:20	Ruelle Operator with weakly contractive IFS *Yuanling YE, South China Normal University*	Iterated function systems with a given continuous stationary distribution Örjan STENFLO, Uppsala University	Heat kernel estimates on a connected sum along a joint with a capacity growth *Satoshi ISHIWATA, Yamagata University*
16:25 – 16:45	Patterns generation problems arising in multiplicative integer systems *Jung-Chao BAN, National Dong Hwa University*	Modified singular value functions and self-affine carpets *Jonathan FRASER, University of St Andrews*	Periodic and non-periodic aspects of the heat kernel asymptotics on Sierpinski carpets *Naotaka KAJINO, Universität Bielefeld*
16:50 – 17:10	Three-dimensional flows: several phenomena *Dawei YANG, Jilin University*	Entropy and geometric measure theory *Tuomas SAHLSTEN, University of Helsinki*	On exact scaling log-Infinitely divisible cascades *Xiong JIN, University of St Andrews*

12 December 2012 (Wednesday)		
	Chair: Kenneth J. FALCONER [LT1]	
08:30 – 09:10	Fractal properties of the Schramm-Loewner evolution Gregory F. LAWLER, University of Chicago	
09:15 – 09:55	Computing Singularity Dimension *Mark POLLICOTT, University of Warwick*	
10:00 – 10:40	Partition, volume doubling property and quasisymmetry on metric-measure spaces *Jun KIGAMI, Kyoto University*	
	Coffee Break [LG/F]	
	Section One [LT1] Chair: Joerg SCHMELING	Section Two [LT2] Chair: Jean-Pierre GABARDO
11:00 – 11:30	Projections of Mandelbrot percolations *Károly SIMON, Technical University of Budapest*	The abc-problem for Gabor system *Qiyu SUN, University of Central Florida*
11:35 – 12:05	Sums of random Cantor sets *Michal RAMS, Polish Academy of Sciences*	Frames for fractal measures and group representations *Deguang HAN, University of Central Florida*
	LUNCH	

	Session One [LT1] Chair: Thomas JORDAN	Session Two [LT2] Chair: Hui RAO
14:00 – 14:30	Multifractal analysis of arithmetic functions *Stéphane JAFFARD, Université Paris Est*	Spectra on fractal measures *Xinrong DAI, Sun Yat-sen University*
14:35 – 15:05	Hardy-Littlewood series and (even) continued fractions *Stéphane SEURET, Université Paris Est*	Exponential spectra in $L^2(\mu)$ *Xinggang HE, Central China Normal University*
15:10 – 15:40	Multifractal analysis on infinitely generated self-affine sets *Antti KÄENMÄKI, University of Jyväskylä*	Bi-Affine Fractal Interpolation Functions and their Box Dimension *Peter MASSOPUST, Technische Universität München and Helmholtz Zentrum München*
	Coffee Break [LG/F]	

	Session One [LT1] Chair: Yimin XIAO	Session Two [LT2] Chair: Pablo SHMERKIN	Session Three [304] Chair: Huojun RUAN
16:00 – 16:20	Conformal Invariance of the Exploration Path in 2D Critical Bond Percolation in the Square Lattice *S.C.P. YAM, The Chinese University of Hong Kong*	Probabilistic Approach to Radix Representation and Pseudodigits *Eva CURRY, Acadia University*	New developments of fractal PDE *Weiyi SU, Nanjing University*
16:25 – 16:45	Discrete Fractal Dimensions of the Ranges of RandomWalks in Z^d Associate with Random Conductances *Xinghua ZHENG, Hong Kong University of Science and Technology*	Fractal tiles and quasidisks *Tai-Man TANG, Xiangtan University*	Fractal dimensions of spectrum of Schrödinger operator with Sturm Potential *Qinghui LIU, Beijing Institute of Technology*
16:50 – 17:10	Packing Dimension Results for Anisotropic Gaussian Random Fields *Dongsheng WU, University of Alabama in Huntsville*	An introduction to the theory of minimal sets and their local structure *Xiangyu LIANG, Université Paris-Sud 11*	Zeta Functions and Complex Dimensions of Bounded Sets in Euclidean Space *John A. ROCK, Cal Poly Pomona*
19:00 – 22:00	BANQUET		

13 December 2012 (Thursday)		
	Chair: Jaques PEYRIÈRE [LT1]	
08:30 – 09:10	On stochastic completeness of jump processes *Alexander GRIGOR'YAN, Universität Bielefeld*	
09:15 – 09:55	Approximation of fractals by tubular neighborhoods - geometric and analytic properties *Martina ZÄHLE, Friedrich Schiller University Jena*	
10:00 – 10:40	Open set condition for graph directed self-similar structure *Zhiying WEN, Tsinghua University*	
	Coffee Break [LG/F]	
	Session n One [LT1] Chair: Shigeki AKIYAMA	Session Two [LT2] Chair: Antti KÄENMÄKI
11:00 – 11:30	Sets of exact approximation order by rational numbers *Yann BUGEAUD, Université de Strasbourg*	Recent advances in Mandelbrot martingales theory *Julien BARRAL, Université Paris 13*
11:35 – 12:05	The dimensional theory of continued fractions *Jun WU, Huazhong University of Science and Technology*	Mandelbrot's cascade in a random environment *Quansheng LIU, Université de Bretagne - Sud and Beijing Technology and Business University*
	LUNCH	
	HALF DAY TOUR	

14 December 2012 (Friday)		
	Chair: Zhiying Wen [LT1]	
08:30 – 09:10	Multifractal analysis of some multiple ergodic average – The Hausdorff spectrum *Ai Hua FAN, Université de Picardie Jules Verne*	
09:15 – 09:55	Multifractal analysis of some multiple ergodic average – The invariant spectrum *Jöerg SCHMELING, Lund University*	
	Coffee Break [LG/F]	
	Session One [LT1] Chair: Quansheng LIU	Session Two [LT2] Chair: Weiyi SU
10:10 – 10:40	Brownian Motion and Thermal Capacity *Yimin XIAO, Michigan State University*	A multifractal analysis for which Olsen's b and B functions differ *Jaques PEYRIÈRE, Université Paris-Sud*
10:45 – 11:15	Fractional Lévy Processes: Paths, Dimensions, and Related *Narn-Rueih SHIEH, National Taiwan University*	Intersection properties of random and deterministic measures *Ville SUOMALA, University of Oulu*
11:20 – 11:50	Zeros distribution of derivatives of random polynomials with i.i.d. zeros *Tuen-Wai NG, University of Hong Kong*	Boundary theory and self-similar set *Xiangyang WANG, Sun Yat-Sen University*
11:55 – 12:25	Infinite iterated function systems with overlaps *Sze-Man NGAI, Georgia Southern University and Hunan Normal University*	Some applications of fractal methods to geomagnetic data analysis *Zuguo YU, Xiangtan University and Queensland University of Technology*
	LUNCH	

	Session One [LT1] Chair: Ville SUOMALA	Session Two [LT2] Chair: Eva CURRY	Session Three [304] Chair: Lin SHU
14:00 – 14:20	Periodic billiard orbits in planar Sierpinski carpets *Joe Po-Chou CHEN, Cornell University*	Isodiametric problems with respect to Hausdorff measure *Jun LUO, Zhongshan University*	Modeling potential as fiber entropy and pressure as entropy *Guohua ZHANG, Fudan University*
14:25 – 14:45	Gaussian free fields on self-similar fractals *Baris UGURCAN, Cornell University*	Connectedness of Self-affine Sets Associated with 3-digit Sets *King-Shun LEUNG, The Hong Kong Institute of Education*	A generalization of Jarnik-Besicovitch Theorem by continued fraction *Jian XU, Huazhong University of Science and Technology*
14:50 – 15:10	Eigenvalues of the Laplacian on Cantor-sets via modified trigonometric functions *Peter ARZT, University of Siegen*	Fourier frames on measure spaces *Chun Kit LAI, McMaster University*	On the strongly tridiagonal competitive-cooperative system *Chun FANG, University of Helsinki*
15:15 – 15:35	Slices through self-similar sets *Rüdiger ZELLER, Arndt University of Greifswald*	Fundamental groups of Rauzy fractals *Timo JOLIVET, Université Paris Diderot*	Energy Measures of Harmonic Functions on the Sierpinski Gasket *Ching Wei HO, The Chinese University of Hong Kong*
15:40 – 16:00	Hausdorff dimension of uniformly random self-affine sets *Henna KOIVUSALO, University of Oulu*		