# Programme for the workshop "Fractals and Tilings", Strobl, July 6–10, 2009

#### Monday, July 6

Time	Name	Title
9.00–9.30	opening	
9.30-10.00	Dan Mauldin	Random Fractals occurring in algorithmic randomness
10.00-10.30	Sze-Man Ngai	Conformal iterated function systems with overlaps
10.30-11.00	coffee break	
11.00-11.30	Jack Lutz	Dimensions of individual points in self- similar fractals and their random subfractal
11.30-12.00	Víctor Sirvent	On the k-bonacci Mandelbrot set
12.00-12.30	Volodymyr Nekrashevych	Quantized calculus on Julia sets
12.30	lunch	

### 12.00-15.00 lunch break

10.45	Avra Laarakker	mal Form
18.00-18.30	Eva Curry &	Connectedness via Jordan and Rational Nor-
17.30-18.00	Ibrahim Kirat	On the self-affine tiles with polytope convex hulls and their Lebesgue measure
17.00–17.30	Christoph Bandt	Three-dimensional self-similar sets and tilings
16.30-17.00	coffee break	
16.00-16.30	Lorenzo Sadun	Tilings without finite local complexity
15.30-16.00	Uwe Grimm	Systems with continuous diffraction
15.00-15.30	Michael Baake	Diffraction of tiling dynamical systems

## Tuesday, July 7

Time	Name	Title
9.00-9.30	Kenneth Falconer	Symmetry and enumeration of self-similar fractals
9.30-10.00	Karoly Simon	The intersection of the Sierpiński carpet with straight lines
10.00-10.30	Maarit Järvenpää	Visibility
10.30-11.00	coffee break	
11.00-11.30	Esa Järvenpää	Hausdorff dimension and non-degenerate families of projections
11.30-12.00	Thomas Jordan	Projections of self-affine carpets
12.30	lunch	

#### 12.00–15.00 lunch break

15.00-15.30	Boris Solomyak	Spacings and pair correlations for finite Bernoulli convolutions
15.30-16.00	Keri Kornelson	Bernoulli systems and ONBs of orthogonal exponentials I
16.00-16.30	Karen Shuman	Bernoulli systems and ONBs of orthogonal exponentials II
16.30 - 17.00	coffee break	
17.00-17.30	Douglas Hardin	Riesz $s$ -equilibrium measures on fractal sets
17.30 - 18.00	Martina Zähle	Curvature densities of self-similar sets
18.00-18.30	Erin Pearse	Tube formulas and self-similar tilings
18.45	dinner	

## Wednesday, July 8

Time	Name	Title
9.00–9.30	Jun Kigami	Dirichlet forms and heat kernels on the Can- tor sets as the traces of random walks on trees
9.30-10.00	Naotaka Kajino	Short time asymptotics of the heat kernel on the harmonic Sierpiński gasket
10.00-10.30	Luke Rogers	Resolvent kernel estimates on p.c.f self- similar fractals
10.30-11.00	coffee break	
11.00-11.30	Ben Steinhurst	Spectrum of a Laplacian on Laakso spaces
11.30-12.00	Dorin Dutkay	Fourier series on fractals
12.30	lunch	

#### 12.00-18.45 free afternoon

18.45 dimer
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## Thursday, July 9

Time	Name	Title
9.00-9.30	Pierre Arnoux	Extensions of substitutions
9.30-10.00	Shigeki Akiyama	Pentagonal tiling generated by a domain exchange
10.00-10.30	Anne Siegel	Rational numbers with purely periodic beta- expansion
10.30 - 11.00	coffee break	
11.00-11.30	Wolfgang Steiner	Multiple tilings defined by generalized beta- transformations
11.30-12.00	Paul Surer	Fractal tiles associated to generalised radix representations and shift radix systems
12.30	lunch	

#### 12.00-15.00 lunch break

15.00-15.30	Ian Putnam	A homology theory for basic sets
15.30 - 16.00	Tai-Man Tang	Structure of planar self-affine tilings
16.00-16.30	Benoît Loridant	Parametrization of the boundary of self- affine tiles
16.30 - 17.00	coffee break	
17.00-17.30	Ka-Sing Lau	Self-affine tiles and connectedness
17.30-18.00	Reinhard Winkler	Fundamental groups of fractals via projective limits of semigroups of words
18.00-18.30	Greg Conner	Fundamental groups of wild spaces
19.30	conference dinner	

## Friday, July 10

Time	Name	Title
9.00–9.30	Alexander Teplyaev	Uniqueness of locally invariant Laplacian, Dirichlet form and Brownian motion on Sierpiński carpets
9.30-10.00	Roberto Peirone	Self-similar energies on finitely ramified frac- tals
10.00 - 10.30	coffee break	
10.30-11.00	Myung-Sin Song	Analysis on fractals, image compression and entropy encoding
11.00-11.30	Wolfram Hojka	Tree-adjoined spaces and the Hawaiian ear- ring
12.00	lunch	