

## List of publications

### Books:

- B1. *Fractal Geometry, Complex Dimensions and Zeta Functions (geometry and spectra of fractal strings)*, with M.L. Lapidus, Springer Monographs in Mathematics, Springer–Verlag, 2006 (xxii+460 pages).
- B2. *Fractal Geometry and Applications: A Jubilee of Benoît Mandelbrot* (with M.L. Lapidus, eds.), Proceedings of Symposia in Pure Mathematics **72**, Part 1 and 2, AMS, Providence, RI, 2004.
- B3. *Dynamical, Spectral and Arithmetic Zeta Functions* (with M.L. Lapidus, eds.), Contemporary Mathematics **290**, AMS, Providence, RI, 2001.
- B4. *Fractal Geometry and Number Theory (complex dimensions of fractal strings and zeros of zeta functions)*, with M.L. Lapidus, Birkhäuser, 2000 (xi+268 pages).

### Theses:

- T1. *Hyperbolic Spaces and the ABC Conjecture*, Ph.D. thesis, Nijmegen, The Netherlands, 1995.
- T2. *Over het vermoeden van Riemann* (About Riemann’s Hypothesis), undergraduate thesis (Cum Laude), Nijmegen, The Netherlands, 1990.

### Journal Articles:

- A1. *The two variable zeta function and the Riemann Hypothesis for function fields*, Expositiones Mathematicae **26/3** (2008), 249–260.
- A2. *ABC implies the Radicalized Vojta Height Inequality for Curves*, J. Number Theory **127** (2007), 292–300.
- A3. *Phase transitions on Hecke  $C^*$ -algebras and class-field theory over  $\mathbb{Q}$*  (with M. Laca), J. reine angew. Math. **595** (2006), 25–53.
- A4. *Arithmetic Progressions of Zeros of the Riemann Zeta Function*, J. Number Theory **115** (2005), 360–370.
- A5. *Complex Dimensions of Self-Similar Fractal Strings and Diophantine Approximation* (with M. L. Lapidus), Experimental Mathematics **12** (2003), 41–69.
- A6. *The ABC conjecture implies Vojta’s Height Inequality for Curves*, J. Number Theory **95** (2002), 289–302; described as ‘quite a gem’ by the referee.
- A7. *A Lower Bound in the ABC Conjecture*, J. Number Theory **82** (2000), 91–95.

- A8. *The ABC Conjecture implies Roth's Theorem and Mordell's Conjecture*, *Matemática Contemporânea* **16** (1999), 45–72.

**Conference Proceedings:**

- P1. *Phase transitions with spontaneous symmetry breaking on Hecke  $C^*$ -algebras from number fields* (with M. Laca), in: *Noncommutative Geometry and Number Theory (where arithmetic meets geometry and physics)*, Marcolli and Consani, eds.), *Aspects of Mathematics E* **37**, Vieweg, 2006.
- P2. *Fractality, Self-Similarity and Complex Dimensions* (with M. L. Lapidus), in [B2].
- P3. *A Prime Orbit Theorem for Self-Similar Flows and Diophantine Approximation* (with M. L. Lapidus), in: 'Dynamical, Spectral and Arithmetic Zeta Functions' (with M. L. Lapidus, eds.), *Proceedings of the special session in San Antonio, Texas, January 1999*, *Contemp. Math.* **290**, AMS, Providence, RI, 2001, pp. 113–138.
- P4. *Complex dimensions of fractal strings and oscillatory phenomena in fractal geometry and arithmetic* (with M. L. Lapidus), in: 'Spectral problems in geometry and arithmetic' (T. Branson, ed.), *Contemp. Math.* **237**, AMS, Providence, RI, 1999, pp. 87–106.

**Invited Paper:**

- I. *About an Alternative to the ABC Conjecture*, for the memorial volume in honor of Serge Lang.

**Chapter in Book:**

- C. *The Riemann Hypothesis for Function Fields over a Finite Field*, for Nova Science Publishers, arXiv:0806.0044v2 [math.NT].

**In Preparation:**

1. *Phase transitions on Hecke  $C^*$ -algebras for higher class numbers* (with M. Laca).
2. *The Riemann Hypothesis for Function Fields (Frobenius flow and shift operators)*, research monograph.
3. *The Volume of the Inner Tubular Neighborhood of the Snowflake Curve*.

**Preprints:**

- p1. *The abc theorem for meromorphic functions*, arXiv:0805.1729v1.
- p2. *Good ABC Examples over Number Fields*, preprint IHÉS/M/97/65.

- p3. *A prime orbit theorem for self-similar flows and Diophantine approximation*, (with M. L. Lapidus), MSRI Preprint No. 2001–039, Mathematical Sciences Research Institute (MSRI), Berkeley, November 2001.
- p4. *Complex dimensions of self-similar fractal strings and Diophantine approximation*, (with M. L. Lapidus), MSRI Preprint No. 2001–040, Mathematical Sciences Research Institute (MSRI), Berkeley, November 2001.
- p5. *Complex Dimensions of Fractal Strings and Oscillatory Phenomena in Fractal Geometry and Arithmetic* (with M. L. Lapidus), ESI preprint series 673, Schroedinger Institute, Austria.
- p6. *Complex Dimensions of Fractal Strings and Oscillatory Phenomena in Geometry and Arithmetic* (with M. L. Lapidus), preprint IHÉS/M/97/85.
- p7. *Complex dimensions and oscillatory phenomena, with applications to the geometry of fractal strings and to the critical zeros of zeta functions* (with M. L. Lapidus), preprint IHÉS/M/97/38.
- p8. *Complex dimensions of fractal strings and explicit formulas for geometric and spectral zeta functions* (with M. L. Lapidus), preprint IHÉS/M/97/34.
- p9. *Zero-Free Regions for the Riemann Zeta Function, Density of Invariant Subspaces of Functions, and the Theory of Equal Distribution*, 1996.
- p10. *Counting the Number of Points on an Algebraic Curve*, in: *Algoritmen in de Algebra*, a seminar on algebraic algorithms, Nijmegen, February–May 1993, A. H. M. Levelt, editor.
- p11. *Some Examples of Heat Kernels and the Artin Formalism*, Nijmegen, 1992.