Mattias Jonsson

Dept of Mathematics; Univ of Michigan; Ann Arbor, MI 48109-1043.
(734)936-9976   (734)763-0937 (fax)   Citizenship: Sweden (US Permanent Resident).
mattiasj@umich.edu   www.math.lsa.umich.edu/∼mattiasj/

BOOKS

- C. Favre, M. Jonsson. *The valuative tree.* Lecture Notes in Mathematics no 1853. Springer-Verlag (2004).

PUBLICATIONS 2011–2015

- S. Boucksom, C. Favre, M. Jonsson. *The Non-Archimedean Monge-Ampère Equation.* To appear in the Proceedings of the Simons Symposia on Tropical and Non-Archimedean Geometry.
- S. Boucksom, C. Favre, M. Jonsson. *Singular semipositive metrics in non-Archimedean geometry.* To appear in J. Algebraic Geom.
- M. Jonsson. *Degenerations of amoebae and Berkovich spaces.* Math. Ann. Published online: April 15 2015.
- S. Boucksom, C. Favre, M. Jonsson. *Solution to a non-Archimedean Monge-Ampère equation.* J. Amer. Math. Soc. 28 (2015), 617–667.
- M. Jonsson. *Dynamics on Berkovich spaces in low dimensions.* Berkovich spaces and applications, 205–366. Lecture Notes in Mathematics, 2119. Springer, 2015.
- S. Boucksom, C. Favre, M. Jonsson. *A refinement of Izumi's Theorem.* Valuation Theory in Interaction, 55–81. EMS Series of Congress Reports, vol 10. European Mathematical Society, Zürich, 2014.
- M. Jonsson, M. Mustaţă. *An algebraic approach to the openness conjecture of Demailly and Kollár.* J. Inst. Math. Jussieu. 13 (2014), 119–144.
- M. Jonsson, E. Wulcan. *Canonical heights for plane polynomial maps of small topological degree.* Math. Res. Lett. 19 (2012), 1207–1217.
- M. Jonsson, M. Mustaţă. *A finiteness property of graded sequences of ideals.* Algebra & Number Theory 6 (2012), 561–571.
- M. Jonsson, M. Mustaţă. *Valuations and asymptotic invariants for sequences of ideals.* Ann. Inst. Fourier. 62 (2012), 2145–2209.
- M. Jonsson, E. Wulcan. *Stabilization of monomial maps.* Michigan Math. J. 60 (2011), 629–660.
- C. Favre, M. Jonsson. *Dynamical compactifications of* $\mathbf{C}^2$. Ann. of Math. 173 (2011), 211–248.

PUBLICATIONS 2006-2010

- M. Dabija, M. Jonsson. *Algebraic webs invariant under endomorphisms.* Publ. Mat. 54 (2010), 137–148.
- M. Jonsson, E. Wulcan. *On Bochner-Martinelli residue currents and their annihilator ideals.* Ann. Inst. Fourier 59 (2009), 2119–2142.
- J. Choi, M. Jonsson. *Partial hedging in financial markets with a large agent.* Appl. Math. Finance. 16 (2009), 331–346.
- A. Ilhan, M. Jonsson, R. Sircar. *Optimal static-dynamic hedges for exotic options under convex risk measures.* Stochastic Process. Appl. 119 (2009), 3608–3632.
- S. Boucksom, C. Favre, M. Jonsson. *Differentiability of volumes of divisors and a problem of Teissier.* J. Algebraic Geom. 18 (2009), 279–308.
- A. Ilhan, M. Jonsson, R. Sircar. *Portfolio optimization with derivatives and indifference pricing.* In *Indifference pricing: Theory and Applications*, Princeton University Press, 2009.
- S. Boucksom, C. Favre, M. Jonsson. *Valuations and plurisubharmonic singularities.* Publ. Res. Inst. Math. Sci. 44 (2008), 449–494.
- S. Boucksom, C. Favre, M. Jonsson. *Degree growth of meromorphic surface maps.* Duke Math. J. 141 (2008), 519–538.
- M. Dabija, M. Jonsson. *Endomorphisms of the plane preserving a pencil of curves.* Internat. J. Math. 19 (2008), 217–221.
- C. Favre, M. Jonsson. *Eigenvaluations.* Ann. Sci. École Norm. Sup. 40 (2007), 309–349.

PUBLICATIONS 2001-2005

- C. Favre, M. Jonsson. *Valuations and multiplier ideals.* J. Amer. Math. Soc. 18, 655-684 (2005).
- C. Favre, M. Jonsson. *Valuative analysis of planar plurisubharmonic functions.* Invent. Math. 162, 271–311 (2005).
- A. Ilhan, M. Jonsson, R. Sircar. *Optimal investment with derivative securities.* Finance Stoch. 9, 585–595 (2005).
- P. Georgiopoulos, M. Jonsson, P. Papalambros. *Linking optimal design decisions to the theory of the firm: the case of resource allocation.* J. Mech. Design., 127, 358–366 (2005).
- M. Jonsson, J. Večeř. *Insider trading in convergent markets.* Appl. Math. Finance. 12, 243–252 (2005).
- M. Jonsson, R. Sircar. *Options: to buy or not to buy?* In *Mathematics of Finance*, 207–215, Contemp. Math., 351, Amer. Math. Soc., Providence, RI, 2004.
- A. Ilhan, M. Jonsson, R. Sircar. *Singular perturbations for boundary value problems arising from exotic options.* SIAM J. Appl. Math. 64, 1268–1293 (2004).
- C. Favre, M. Jonsson. *Brolin's theorem for curves in two complex dimensions.* Ann. Inst. Fourier 53, 1461–1501 (2003).
- M. Jonsson, D. Varolin. *Stable manifolds of holomorphic diffeomorphisms.* Inv. Math. 149, 409–430 (2002).
- M. Jonsson, R. Sircar. *Partial hedging in a stochastic volatility environment.* Math. Finance, 12 375–409 (2002).
- M. Jonsson, J. Keppo. *Option pricing for large agents.* Appl. Math. Finance, 9, 261-272 (2002).
- M. Jonsson, R. Sircar. *Optimal investment problems and volatility homogenization approximations.* In *Modern methods in scientific computing and applications* NATO Science Series II/75, 255–281, Kluwer, 2002.

PUBLICATIONS 1997-2000

- E. Bedford, M. Jonsson. *Potential theory in complex dynamics: Regular polynomial endomorphisms of* $\mathbf{C}^k$. In *Complex Analysis and Geometry. International Conference in Honor of Pierre Lelong.* Progr. Math. 188, 203–211, Birkhäuser, 2000.
- M. Jonsson. *Ergodic properties of fibered rational maps.* Ark. Mat. 38, 281–317 (2000).
- E. Bedford, M. Jonsson. *Dynamics of regular polynomial endomorphisms of* $\mathbf{C}^k$. Amer. J. Math., 122, 153–212 (2000).
- J. Diller, M. Jonsson. *Topological entropy of saddle sets in* $\mathbf{P}^2$. Duke Math. J., 103, 261–278 (2000).
- M. Jonsson, B. Weickert. *A nonalgebraic attractor in* $\mathbf{P}^2$. Proc. Amer. Math. Soc., 128, 2999–3002 (1999).
- M. Jonsson. *Dynamics of polynomial skew products on* $\mathbf{C}^2$. Math. Ann., 314, 403–447 (1999).
- M. Jonsson. *Holomorphic motions of hyperbolic sets.* Michigan. Math. J., 45, 409–415 (1998).
- M. Jonsson. *Sums of Lyapunov exponents for some polynomial maps of* $\mathbf{C}^2$. Ergodic Theory Dynam. Systems, 18, 613–630 (1998).
- M. Jonsson. *Some properties of 2-critically finite holomorphic maps of* $\mathbf{P}^2$. Ergodic Theory Dynam. Systems, 18, 171–187 (1998).
- M. Jonsson, J. Wästlund. *Partitions of* $\mathbf{R}^3$ *into circles.* Math. Scand., 83, 192–204 (1998).
- M. Jonsson. *Dynamical studies in several complex variables.* PhD Thesis, Royal Institute of Technology (1997).

PREPRINTS

- R. Berman, S. Boucksom, M. Jonsson. *A variational approach to the Yau-Tian-Donaldson conjecture.* `arXiv:1509.04561`.
- M. Jonsson, P. Reschke. *On the complex dynamics of birational surface maps defined over number fields.* Submitted. `arXiv:1505.03559`.
- S. Boucksom, T. Hisamoto, M. Jonsson. *Uniform K-stability, Duistermaat-Heckman measures and singularities of pairs.* Submitted. `arXiv:1504.06568`.
- S. Boucksom, M. Jonsson. *Singular semipositive metrics on line bundles over trivially valued fields.* In preparation.
- S. Boucksom, M. Jonsson. *A measure-theoretic study of degenerations of Calabi-Yau varities.* In preparation.
- M. Jonsson, E. Wulcan, J. Xie. *Invariant pencils for polynomial selfmaps of the affine plane.* In preparation.
- M. Jonsson, E. Wulcan, J. Xie. *On Silverman's conjecture for polynomial selfmaps of the plane.* In preparation.
- S. Boucksom, T. Hisamoto, M. Jonsson. *Uniform K-stability: analytic aspects.* In preparation.