

## PUBLICATION LIST

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### 0.1. Free boundary problems.

- (With O. Savin) Contact points with integer frequencies in the thin obstacle problem, *preprint*.
- (With O. Savin) On the fine regularity of the singular set in the nonlinear obstacle problem, *submitted*.
- (With Y. Wu) On the fully nonlinear Alt-Phillips equation, *accepted by International Math. Research Notice*.
- (With O. Savin) Free boundary regularity in the triple membrane problem, *submitted*.
- (With O. Savin) Regularity of the singular set in the fully nonlinear obstacle problem. *accepted by J. Euro. Math. Soc.*
- (With O. Savin) On the multiple membranes problem. *J. Funct. Anal.* 277 (2019), no. 6, 1581-1602.
- An optimization problem in heat conduction with minimal temperature constraint, interior heating and exterior insulation. *Cal. Var. PDEs* 55 (2016), no. 6, 1-15.

### 0.2. Optimal transport and the Monge-Ampère equation.

- (With O. Savin) Global  $W^{2,1+\varepsilon}$  estimates for Monge-Ampère equation with natural boundary condition. *J. Math. Pures. Appl.* 137 (2020), no. 9, 275-289.
- (With O. Savin) Regularity of optimal transport between planar convex domains. *Duke Math. J.* 169 (2020), no. 7, 1305-1327.

### 0.3. Motion of sets and geometric flow.

- (With L. Caffarelli) A curvature flow in the plane with a nonlocal term. *Calc. Var.* (2018) 57:29.
- Motion of sets by curvature and derivative of capacity potential. *J. Differential Equations* 267 (2019), no. 1, 15-60.

### 0.4. Nonlocal elliptic equations.

- (With V. Millot, Y. Sire) Minimizing fractional harmonic maps on the real line in the supercritical regime. *Discrete and Continuous Dynamical Systems-A* 38 (2018), no. 12, 6195-6214.
- Unique continuation of fractional orders of elliptic equations. *Annals of PDE* (2017) 3:16.

- Small perturbation solutions for nonlocal elliptic equations. *Comm. in PDEs* 42 (2017), no. 1, 142-158.
- A Dirichlet problem for nonlocal degenerate elliptic operators with interior nonlinearity. *J. Math. Anal. Appl.* 448 (2017), no. 1, 326-346.
- $W^{\sigma,\varepsilon}$ -estimates for nonlocal elliptic equations. *Annales de l'Institut H. Poincaré-C* 34 (2017), no. 5, 1141-1153.
- Smooth solutions to a class of nonlocal fully nonlinear elliptic equations. *Indiana Math. J* 66 (2017), no. 6, 1895-1919.

0.5. **Analysis on fractals.**

- (With S. Aaron, Z. Conn, R. Strichartz) Hodge-de Rham theory on fractal graphs and fractals. *Comm. Pure Appl. Anal.* 13 (2014), no. 2, 903-928.

0.6. **Expository.**

- A brief survey on the obstacle problem. *To appear in Proceedings of the 8th International Congress of Chinese Mathematicians.*
- What is a generalized mean-curvature flow? *Notices of AMS* 64 (2017), no. 6, 580-581.