Yujin H. Kim (PhD Student | Courant Institute, NYU)

- Program Associate, Office 315.
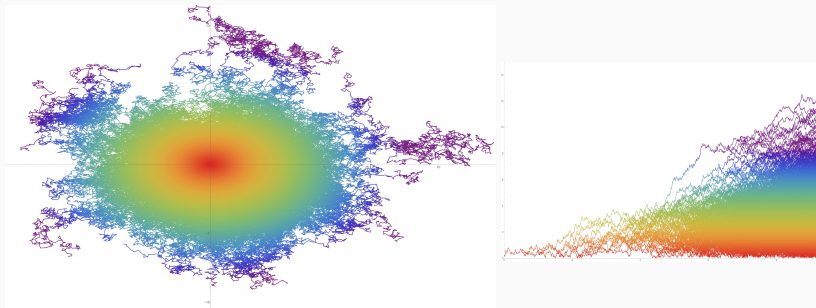- Advisors: Eyal Lubetzky and Ofer Zeitouni.

Fig: 2D BBM (left) and its modulus as a function of time (right)

- Program Associate, Office 315.
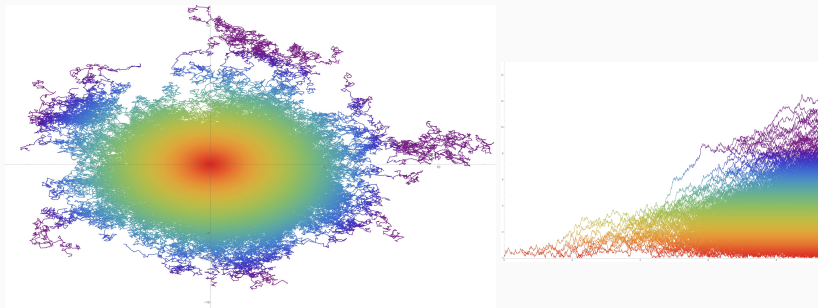- Advisors: Eyal Lubetzky and Ofer Zeitouni.

Fig: 2D BBM (left) and its modulus as a function of time (right)

- Let M_t denote the maximum modulus of a d-dimensional BBM, for $d \geq 1$. Then

$$\lim_{t \to \infty} \mathbb{P}\left(M_t - \left(\sqrt{2}t + \frac{d-4}{2\sqrt{2}} \log t \right) \leq y \right) = \text{randomly shifted Gumbel}$$

- $d = 1$ case: Bramson ('83) | $d \geq 2$: K., Lubetzky, Zeitouni (2021)

Coming soon… the limiting extremal point process of d-dim. BBM (joint with J. Berestycki, E. Lubetzky, B. Mallein, and O. Zeitouni)

$d = 1$ **case**: Aidekon-Berestycki-Brunet-Shi and Arguin-Bovier-Kistler (2011)

Coming soon… the limiting extremal point process of d-dim. BBM (joint with J. Berestycki, E. Lubetzky, B. Mallein, and O. Zeitouni)

$d = 1$ **case**: Aidekon-Berestycki-Brunet-Shi and Arguin-Bovier-Kistler (2011)

Artistic rendition:

Coming soon… the limiting extremal point process of *d*-dim. BBM (joint with J. Berestycki, E. Lubetzky, B. Mallein, and O. Zeitouni)

d = 1 **case**: Aidekon-Berestycki-Brunet-Shi and Arguin-Bovier-Kistler (2011)

Artistic rendition:

Information we needed:

- tight control on the paths of the leading particles
- genealogical information of the leaders
- geometrical estimates, connections between geometry and genealogy