

**Probability measure on the space of Jordan curves****Paul Malliavin**

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**Abstract :** Representation of smooth Jordan curve on the complex plane by a smooth diffeomorphism of the circle through Ahlfors-Beurling conformal sewing. Identification of smooth Jordan curve to the double coset of the group of diffeomorphism by the group of Möbius transformation. Canonical Riemannian metric on the double coset. Brownian motion on the group of homeomorphism of the circle. Resolution by continuity method of conformal sewing for Hölderian Jordan curves. Probability measure on Hölderian Jordan curve and its quasi-invariance. Kirillov complex Kähler structure on the "manifold" Jordan curves, and its corresponding canonical line bundle.