



## Mathematics and CS Seminar

# The geodesics in Liouville quantum gravity are not Schramm-Loewner evolutions

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This is a joint work with Jason Miller. We prove that the geodesics associated with any metric generated from Liouville quantum gravity (LQG) which satisfies certain natural hypotheses are necessarily singular with respect to the law of any type of  $SLE_{\kappa}$ . These hypotheses are in particular satisfied by the LQG metric for  $\gamma = \sqrt{8/3}$ , which is isometric to a Brownian surface, constructed by the first author and Sheffield. As a consequence of our analysis, we also establish certain regularity properties of LQG geodesics which imply, among other things, that they are conformally removable.

**Tuesday, December 4, 2018 04:00pm - 05:00pm**

IST Austria Campus Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



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