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# POINCARÉ SERIES AND LINKING OF LEGENDRIAN KNOTS

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September 27, 2021

On a compact surface of variable negative curvature, I will explain that the Poincaré series associated to the geodesic arcs joining two given points has a meromorphic continuation to the whole complex plane. This is achieved by using the spectral properties of the geodesic flow. Moreover, the value of Poincaré series value at 0 is rational in that case and it can be expressed in terms of the genus of the surface by interpreting it in terms of the linking of two Legendrian knots. If time permits, I will explain how this result extends when one considers geodesic arcs orthogonal to two fixed closed geodesics. This is a joint work with N.V. Dang.