1046-53-1093   **Peter Buser*** (`peter.buser@epfl.ch`), Professor Peter Buser, École Polytechnique Fédérale Lausanne, SB-IGAT-GEOM, Station 8, CH-1015 Lausanne, Switzerland, and **Hugo Parlier** (`hugo.parlier@epfl.ch`), Dr. Hugo Parlier, École Polytechnique Fédérale Lausanne, SB-SMA-GE, (BCH), CH-1015 Lausanne, Switzerland. *Graphical representation of the Birman-Series set on hyperbolic surfaces.* Preliminary report.

It is well known that complete geodesics on a compact negatively curved manifold are dense. In contrast to this, Birman and Series showed that in dimension two (and constant curvature), the sublocus of this set formed by the simple complete geodesics is nowhere dense. The lecture presents algorithms that compute this set up to a given degree of accuracy. A difficulty occurs from the fact that in negative curvature, geodesics spread with exponential speed. In the lecture it is shown how one may solve this without having to resort to ultra high precision. (Received September 14, 2008)