## About the geometry of milling paths (the case of discrete surfaces)

Márta Szilvási-Nagy Department of Geometry Budapest University of Technology and Economics e-mail: szilvasi@math.bme.hu

Standard representations of free-form surfaces are given by triangle meshes, which are generated by the most CAD systems in STL (stereo lithography) format developed for rapid prototyping. In computer-aided manufacturing systems tool-paths for NC machining are frequently generated by slicing the surface with parallel planes [1,4]. As equal distances between intersecting planes cause unevenly distributed tool paths, the surface has to be divided into different regions e.g. according to isophotic lines [3] as proposed in [2]. For determining the optimal moving direction of the cutting tool a method for analytic surfaces is given in [6] considering the machining tolerance and also the shape of the surface. In this paper we present a method for determining the moving direction of the cutting tool on a triangular mesh by computing curvature values. In the computations we use the data structure applied in [4,5].

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