962-51-1097 **Simon P Morgan*** (sphmorgan@hotmail.com), Department of Mathematics MS-136, Rice University, 6100 Main Street, Houston, TX 77005. *Assigning distributional curvature to 1 complexes via their isometric embedding in polyhedra.* Preliminary report.

We consider sets consisting of finite unions of line segments. We are giving these sets a metric structure and the length space property, that is the distance between two points can be realized as the length of a path between them. We will show that points on the interior of a line segment where it is not intersecting any other line segment have zero distributional curvature, and points where n line segments meet have a negative distributional curvature equal to -(n-2)pi. We achieve this number in two different ways. Firstly we look at the geometry of triangles and polyhedra in the space around these points. Curvature can be seen in its effect on area of triangles and on the sum of interior angles of triangles. Secondly we look at geodesics going through the points and make arguments based on considering isometric embedding of the 1 complexes in polyhedra. We also check that when we isometrically embed examples of 1 complexes in polyhedra our assigned distributional curvatures are consistent with the polyhedral angle deficits and the polyhedral version of the boundariless Gauss Bonnet formula: the sum of angle deficits equals 2 pi times the Euler characteristic. (Received October 02, 2000)