Junjiro Noguchi: Connections and holomorphic curves

Abstract: In 1974 S.-S. Chern, M.J. Cowen and A.L. Vitter III used connections to obtain the second main theorem for holomorphic curves. In Duke Math. J. 1987 with ibid. 1990 Y.-T. Siu used smooth and meromrophic connections to get a second main theorem for holomorphic curves. Their methods are modeled after Weyls-Ahlfors' one for holomorphic curves in the complex projective space, and the required condition for the connections are very restrictive. Here we introduce a new method to apply the connection technic for holomorphic curves, which simplyfies the conditions and the computations, compared with the former works.