998-37-114 Irasema Gordillo, IICO/UASLP, A. Obregon 64, 78000 San Luis Potosi, SLP, Mexico, and Jesus Urias\* (jurias@cactus.iico.uaslp.mx), IICO/UASLP, A. Obregon 64, 78000 San Luis Potosi, SLP, Mexico. Filtering chaotic maps. Preliminary report.

The general theory of chaos synchronization is applied to the problem of filtering time series generated by chaotic maps. In the case that the generator is an invertible map, the synchronization function is expressed as a formal series and its regularity properties are determined in terms of the system parameters. Lower and upper bounds are given for the Hausdorff dimension of the attractor. (Received February 18, 2004)