Abstract—The reconfigurable mesh (R-Mesh) has drawn much interest in recent years, due in part to its ability to admit extremely fast algorithms for a large number of problems. For these algorithms to be useful in practice, the R-Mesh must be “scalable;” that is, any algorithm designed for a large R-Mesh should be able to run on a smaller R-Mesh without significant loss of efficiency. A “scaling simulation” performs the adaptation of a given algorithm to a smaller R-Mesh.

This seminar will describe the basic features of reconfigurable bus architectures, like the general R-Mesh and some other restricted variations. It will also present some novel scaling simulations for these models.