FPGAs are useful for rapidly implementing digital systems. Because of their special structure and comparative slowness, special techniques are necessary in the design process. This session presents new techniques and improvements in partitioning, placement, and routing specifically for FPGAs.

An Architecture-Independent Approach to FPGA Routing Based on Multi-Weighted Graphs
Michael J. Alexander, James P Cohoon, Joseph L. Ganley, and Gabriel Robins

Algorithms for a Switch Module Routing Problem
Shashidhar Thakur, D.F. Wong, and S. Muthukrishnan

A Unified Cost Model for Min-Cut Partitioning with Replication Applied to Optimization of Large Heterogeneous FPGA Partitions
Roman Kuznar, Baldomir Zajc, and Franc Brglez

A Delay Driven FPGA Placement Algorithm
Srilata Raman, C.L. Liu, and Larry G. Jones