Limits of Parallelism


Exploiting ILP in Presence of Conditionals

Code Motion


Branch Prediction


Note: The roots of speculative execution can be traced back to the design of the Stretch computer, wherein a conditional branch was always assumed to be not-taken and a lookahead unit was provided for recovery in case of misprediction.


Predication


Speculative Execution

Early Work


Post 1990's


Early work in Speculative Execution

Reading List


Early work in Speculative Execution


Early work in Speculative Execution

Reading List


**Control Speculation**


**Data Dependence Speculation**


Data Value Speculation


Reading List


Multithreaded Processors


Micro-architectural Support for Multithreading


Performance Study


