Breakout Group #1

Computational models to enable new and transformative ways of 'thinking parallel,' including new abstractions that account for parallelism and concurrency, and support reasoning about the correctness and parallel performance, consisting of communication, energy costs, resiliency, and security
[This room]

Breakout Group #2

Programming languages to enable effective expression of parallelism and concurrency at every scale, including new approaches to developing software, handling messaging and shared memory, and improving programming productivity on parallel and distributed systems [Room 4405]

Breakout Group #3

Disruptive rethinking of the canonical computing 'stack' – applications, programming languages, compilers, run-time systems, virtual machine, operating systems, and architecture – in light of parallelism and resource-management challenges and to support optimization across all layers of the stack from software down to the architecture level [Room 7101]

Breakout Group #4

New algorithmic paradigms that promote reasoning about parallel performance and lead to provable performance guarantees, while allowing algorithms to be mapped onto diverse parallel and distributed environments, and optimizing resource usage including compute cycles, communication, input-output (I/O), memory hierarchies, and energy [Room 9115]