

Categories (programmability)

- Category I: Uniquely Exascale
 - Models of computation, which should be very brand-new one if we aim at billion-scale parallelism expressed in a single program. New models of programming should be accompanied with the revolutionary computation models. Hopefully, these models can scale 10-100 billion-scale and can be a firm basis of trillion-scale.
- Category II: Exascale plus trickle down
 - Some brand-new runtime/OS interface is required for computational-environment-aware programming for fault resilient and/or power-aware programming.
- Category III: Primarily Sub-exascale.
 - We can start now to exercise of keeping/improving programmability of 100K-1M level application programming in order to decouple Exascale (system) issues from application programming.