“Massive Cloud Computing for Solid-State & EM Calculations”

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Abstract:
In this talk we will present a High Performance Computing platform that allows scientists to on-the-fly create massive (~100,000 cores) self-scaling HPC cluster for a fraction of cost (~$2000). Cluster traces the MPI and openMP workload demand and creates and kills nodes automatically. We will look into few representative real life use cases from solid state devices and electromagnetic application areas to demonstrate how such capabilities can help solve some tough scientific challenges.

Biography:
Dr. Agrawal holds a PhD in Electrical Engg from Stanford (2008) and a BTech in Electronics Engg from I.I.T., India. He has authored 50+ scientific publications and is cited 1500+ times. In past Dr. Agarawal held various positions at TI, AMAT and SunPower and also did a Khosla Venture funded silicon thermoelectrics startup. In 2016, Dr. Agrawal founded Kogence with an aim to democratize access to scientific high performance computing. Kogence is venture funded technology integration partner of Amazon, Microsoft, nVidia, Dassault and Siemens. In 3 short years, Kogence has grown to 15 strong team with over 750K in annual revenues.