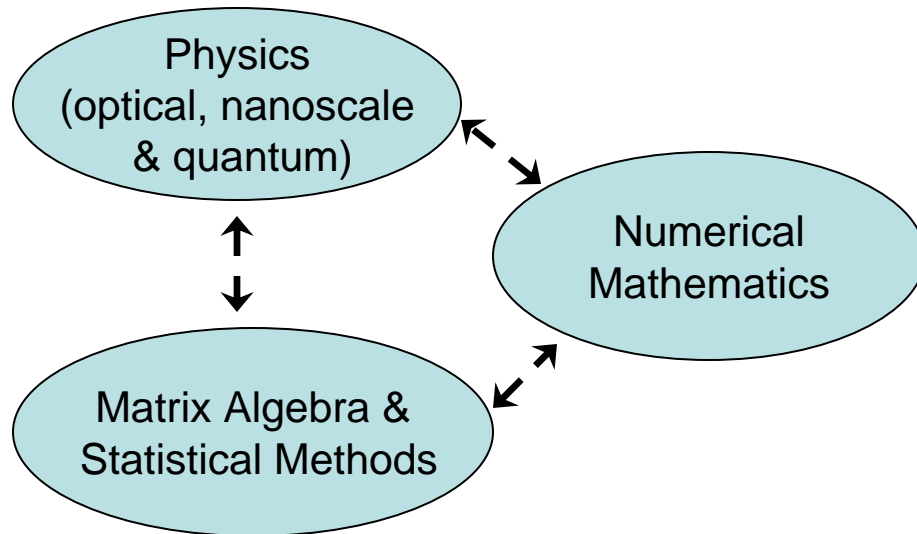
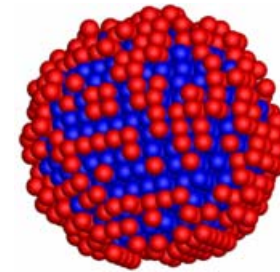


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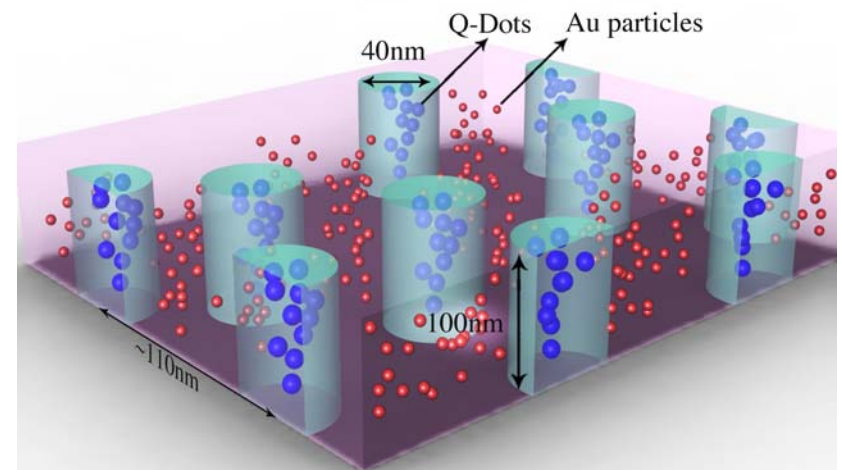
Murugesan Venkatapathi



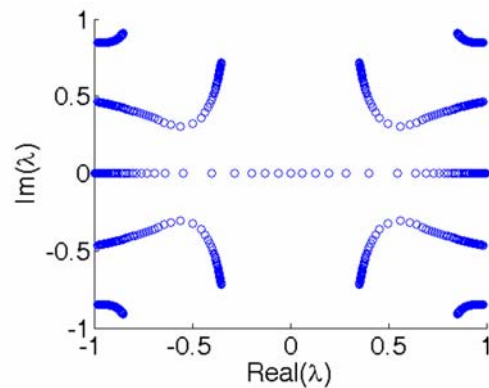
Optical properties of nanoscale composites



N-body problems in photon emission



Periodicity in matrices



Comp. & Stat. Physics Group

Recent / Current work:

Math / Computing:

- Periodic matrices, Matrix analysis & decompositions
- Error estimation in iterative solution of $Ax=b$ problems i.e. estimate error $(x - x_k)$ from residue $(b - Ax_k)$
- Computational methods for stochastic simulations : Algebra of random variables

Physics:

- Theory and computation for quantum N -body problems in photon emission
- Some insights into classical electromagnetic theory and its application in developing composite optical materials