

A few words on Reality, Monte Carlo Transport, and Deterministic Transport

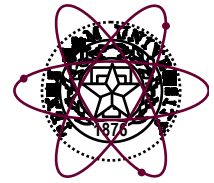
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Quick Comparison



	Reality	Monte Carlo	Deterministic
Fundamental approach	Particles do what they do	Simulate history of individual particles	Solve equations
System	Single	Average of infinite # of systems	Average of infinite # of systems
Geometry	As built	Easy to get close enough (if known)	More difficult
Materials	As built; impurities	Model	Model
Interaction physics	Complicated and not completely known	“evaluated data” plus few discretizations	“evaluated data” plus more approximations
Interaction physics	Each particle changes environment	Approximation	Approximation
Discretizations	None	Particles travel in bundles	In energy, direction, spatial variables