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Aneesur Rahman Prize Talk

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During the past decade there has been a unique synergy between theory, experiment and simulation in Soft Matter Physics. In colloid science, computer simulations that started out as studies of highly simplified model systems, have acquired direct experimental relevance because experimental realizations of these simple models can now be synthesized. Whilst many numerical predictions concerning the phase behavior of colloidal systems have been vindicated by experiments, the jury is still out on others. In my talk I will discuss some of the recent technical developments, new findings and open questions in computational soft-matter science.