



(Quantum) Physical Informatics

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Message from the Guest Editors

Dear Colleagues,

- What are the key quantum computer chips and prospects?
- What is the difference between information entropy and physical entropy?
- Are quantum key distribution schemes unconditionally secure? Under what conditions?
- What are the true dissipation limits in real quantum computers?
- How will physical noise limit quantum computing at various level?
- What is the truth of Landauer's and Brillouin's limiting principles?
- Can classical physical systems provide exponential speedup and random algorithm implementations?
- Are there analog computing schemes that could provide exponential speedup?
- Are Brownian computers possible, and are they sufficiently energy efficient?
- In what situations might stochastic resonance, noise excitation, give a viable method of enhanced performance?
- What effects of computational complexity have an effect on dissipation?



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Message from the Editor-in-Chief

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