

# Special Issue

## Effective Field Theories for Condensed Matter and Statistical Systems

### Message from the Guest Editor

Effective field theories can be utilized for the investigation of the low-energy, long-distance properties of strongly correlated condensed matter and statistical systems. In particular, in systems displaying universality and exactness in some of their observables, such as the quantum Hall effect, these theories provide analytic tools with access to non-perturbative regimes. For quantum systems with one-dimensional degrees of freedom or two-dimensional statistical systems at criticality, conformal field theories yield a mathematical framework providing results that are otherwise difficult to attain. We are pleased to invite researchers to share their findings regarding the quantum Hall effect, bosonization, quantum hydrodynamics, collective field theories,  $W$ -infinity and related algebras, Calogero–Sutherland models, 2D critical phenomena, renormalization group, quantum phases, statistical mechanics models and related subjects. We seek papers that provide a deeper understanding of the physical properties of well-known and new systems, including quantum excitations with novel properties, and that propose experiments for testing them on real samples.

### Guest Editor

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### Deadline for manuscript submissions

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## Mathematics

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## About the Journal

### Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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### Editor-in-Chief

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