Introduction

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One contribution of 11 to a Theo Murphy Meeting Issue ‘Storage and indexing of massive data’.

Subject Areas:
bioinformatics, algorithmic information theory, pattern recognition, theory of computing, systems theory, software

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Storage and indexing of massive data

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This issue contains papers presented at the Theo Murphy international scientific meeting on ‘Storage and indexing of massive data’. The meeting was held at the Royal Society at Chichely Hall, Buckinghamshire, home of the Kavli Royal Society International Centre, on 7–8 February 2013.

Big data is a subject which has attracted significant interest in recent years. In the past, the speed at which interesting data was produced was significantly slower than our ability to process it. However, today the problem is reversed and our ability to produce data greatly outstrips our ability to process and analyse it. In other words, the scale of data which needs to be stored, processed and analysed has greatly increased.

The recent Royal Society meeting on storage and indexing of massive data covered a wide variety of topics related to this area: compression, indexing, storage, information retrieval and more. The meeting brought together researchers from string processing, bioinformatics and information retrieval and covered both theoretical concepts and practical applications. Massive data is an area where theory and practice meet regularly and often the two cannot be obviously separated.

From this meeting, it is clear that although lots of work has been done and many efficient methods for dealing with huge databases, human genome data and other sources of massive data have been developed, there is still much to do. It is recognized throughout the community that techniques need to be developed to efficiently deal with terabytes, petabytes and beyond.

We would like to thank the authors for their contributions; the quality of the work made the meeting exceptional. We would like to thank the reviewers for their thorough, constructive and helpful comments and suggestions on the manuscripts. Finally, many thanks to the Royal Society staff for the organization of and the hospitality at the meeting.