Dorit Hammerling - Chair

Data compression Panel

Abstract:
Our ability to generate increasingly larger data sets from high resolution numerical models is outpacing our ability to store, manage and effectively access these vast volumes of data. One potential solution to this Big Data dilemma is the use of lossy compression. Lossy compression is able to achieve substantial storage reduction, but by its very definition is unable to exactly reproduce original values. The question then becomes addressing how much information loss may be tolerated without affecting the interpretation of results, and how can this best be achieved? This panel, consisting of members from different vantage points, will discuss a variety of scientific data compression topics including: novel technologies, methods for evaluation and computational aspects.