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	Sommario/riassunto	This book presents the state-of-the-art in simulation on supercomputers. Leading researchers present results achieved on systems of the High Performance Computing Center Stuttgart (HLRS) for the year 2013. The reports cover all fields of computational science and engineering ranging from CFD via computational physics and chemistry to computer science with a special emphasis on industrially relevant applications. Presenting results of one of Europe's leading systems this volume covers a wide variety of applications that deliver a high level of sustained performance. The book covers the main methods in high performance computing. Its outstanding results in achieving highest performance for production codes are of particular interest for both the scientist and the engineer. The book comes with a wealth of coloured illustrations and tables of results.