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Nota di contenuto	1. Perez, Hector D. and Grossmann, Ignacio E., Recent Advances in Computational Models for the Discrete and Continuous Optimization of Industrial Process Systems -- 2 Casal, G. at al., Optimal Design of a Railway Bypass at Parga, Northwest of Spain -- 3. Parolini, N. et al., Reduced models for liquid food packaging systems -- 4. Martín, E. et al., Reduced order modelling in the manufacturing process of wire rod: Applications for fast temperature predictions and optimal selection of process parameters -- 5. Coroas, C. and Martín, Elena B., Modelling and numerical simulation of the quenching heat treatment. Application to the industrial quenching of automotive spindles -- 6. Alborés, Alfredo R. and Rodríguez, J., Single Particle Models for the Numerical Simulation of Lithium-ion Cells -- 7. Casasnovas, D. and Rivero, Á., Fracture propagation using a phase field approach -- 8. López García, J. and Rivero, Á., Phase space learning with neural networks.
Sommario/riassunto	This book results from the talks presented at the First Conference on Transfer between Mathematics & Industry (CTMI 2019). Its goal is to promote and disseminate the mathematical tools for Statistics & Big Data, MSO (Modeling, Simulation and Optimization) and their industrial

applications. In this volume, the reader will find innovative advances in the automotive, energy, railway, logistics, and materials sectors. In addition, Advances CTMI 2019 promotes the opening of new research lines aiming to provide suitable solutions for the industrial and societal challenges. Fostering effective interaction between Academia and Industry is our main purpose with this book. CTMI conferences are one of the main forums where significant advances in industrial mathematics are presented, bringing together outstanding leaders from business, science and Academia to promote the use of mathematics for an innovative industry.
