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Nota di contenuto	Contents; Preface; Chapter 1 Foam as granular matter D. Weaire, V. Langlois, M. Saadatfar and S. Hutzler; 1. Introduction; 1.1. History of foam research; 1.2. Space and time scales; 1.3. Key physical parameters; 1.4. Wet and dry foams; 1.5. Emulsions; 2. Static properties; 2.1. Structure; 2.2. Crystallization; 2.3. Drainage; 3. Dynamic properties; 3.1. Rheology; 3.2. Shear banding; 3.3. Dilatancy; 4. Bubbles as soft grains ?; 5. Seeing inside foams (Computed Tomography); Granular materials; Cellular Solids; Aqueous foams; 6. Conclusions; 7. Acknowledgements; References Chapter 2 Delaunay simplex analysis of the structure of equal sized spheres A.V. Anikeenko, N.N. Medvedev, T. Di Matteo, G.W. Delaney and T. Aste1. Introduction; 2. Models; 3. Results; 4. Conclusion; Acknowledgements; References; Chapter 3 On entropic characterization

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Sommario/riassunto

The science of complex materials continues to engage researchers from a vast range of disciplines, including physics, mathematics, computational science, and virtually all domains of engineering. This volume presents a unique multidisciplinary panorama of the current research in complex materials. The contributions explore an array of problems reflecting recent developments in four main areas: characterization and modeling of disordered packings, micromechanics and continuum theory; discrete element method; statistical mechanics. The common theme is the quest to unravel the connection betwee