

1. Record Nr.	UNINA9910409699003321
Titolo	The Art of Theoretical Biology // edited by Franziska Matthäus, Sebastian Matthäus, Sarah Harris, Thomas Hillen
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-33471-6
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (X, 152 p. 72 illus., 66 illus. in color.)
Disciplina	570.285
Soggetti	Systems biology Mathematics Visualization Fine arts Bioinformatics Systems Biology Fine Arts Computational Biology/Bioinformatics Biomatemàtica Llibres electrònics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	The Deadly Beauty of Cancer -- Cellular Connections -- Annealing Party -- Cells on the Ferris Wheel -- The Magic Pants that Always Fit -- Racing Triangles -- Rising Dragons -- Henri in Wonderland -- Peak of the Iceberg -- Guiding Spiral -- The Hidden Beauty of Roots -- The Beauty of a Beast -- The Ghost -- Lymph Node Landscapes -- Breezing Drops -- Labyrinths: Exotic Patterns of Cortical Activity -- Mammalian Lipidomic Network -- One Step at a Time -- How a Tumor Gets its Spots -- Patchwork Patterns -- Cancer Warfare -- Collective Decision Making -- Cell Simulation in Blossom -- Semblance of Heterogeneity -- Can we Crack Cancer? -- Dance with Predators and Prey -- Knitting Proteins -- Nothing Stands Still in the Streams of Life -- Restless Mind Wandering -- Morphological Echoes -- Cancer as a Killer Tsunami -- Cells Are Watching You -- Roots or Flowers? Take a Guess... -- Spectral

Forms and Cosmic Storms -- Antigenic Explosion -- Crop Circles of Cancer -- Scalp -- Coupled Invasion -- Lost in the Cells -- Becoming Important -- Community Matters -- Acidic Dance -- Flocking, Swirling and Spinning Stars in a Cell -- A Mosaic of Cancer and Liver Tissue -- Cell Firework -- Pulled in Line -- Convergence -- Arctic Breeze -- Extracellular Galaxies -- Oriental Landscape Painting by Predator Species -- Life is Lived on the Edge -- Cellular Swarms in Cellular Automata -- Bumps, Ridges, and no Flows in Vein -- Growing Orbs / Mingled Metabolism -- Out of the Comfort Zone -- Green Protein Interaction Wheel -- Vincent van Gogh's Autocatalysis -- Clonal Inferno -- What Lies Beneath (the Heartbeat) -- Tree of Life -- Tower of Life -- Clone Wars - The Immune System Awakens -- Modelled Cell -- CD196- -- Tumor Composition Depends on the Viewing Angle -- Poincaré's Homoclinic Horror -- E|A|S (Evolving Asteroid Starships) -- Interacting Spider Webs -- Heart Cells are aMAZEing -- Actin Spring -- Dynamical Diggers.

Sommario/riassunto

This beautifully crafted book collects images, which were created during the process of research in all fields of theoretical biology. Data analysis, numerical treatment of a model, or simulation results yield stunning images, which represent pieces of art just by themselves. The approach of the book is to present for each piece of visualization a lucid synopsis of the scientific background as well as an outline of the artistic vision. .
