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| 1. Record Nr.           | UNINA9910808866503321   |
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| Titolo                  | Analysis of complex diseases : a mathematical perspective / / Guanyu Wang   |
| Pubbl/distr/stampa      | Boca Raton : , : CRC Press, Taylor & Francis Group, , [2014]<br>2014  |
| ISBN                    | 0-429-07190-6<br>1-4665-7221-3  |
| Descrizione fisica      | 1 online resource (xxi, 196 pages) : illustrations (some color)   |
| Collana                 | Gale eBooks   |
| Disciplina              | 616.3/9   |
| Soggetti                | Metabolism - Disorders<br>Systems biology<br>Biological models<br>Genetic disorders   |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Note generali           | Description based upon print version of record.   |
| Nota di bibliografia    | Includes bibliographical references.  |
| Nota di contenuto       | Food intake and energy metabolism -- Glucose homeostasis -- Optimal glucose homeostasis -- Bistability as a fundamental phenomenon -- Biomolecular network -- P13K-AKT-TOR pathway -- Diseases related to metabolism -- Mathematical modeling of the P13K-AKT-TOR Pathway -- Fundamental decomposition -- Normal phenotype -- Disease phenotypes -- Tao of diseases.  |
| Sommario/riassunto      | A complex disease involves many etiological and risk factors operating at multiple levels-molecular, cellular, organismal, and environmental. The incidence of such diseases as cancer, obesity, and diabetes are increasing in occurrence, urging us to think fundamentally and use a broader perspective to identify their connection and revolutionize treatments. The understanding of biological data derived from studying diseases can be enhanced by theories and mathematical models, which clarify the big picture and help to reveal the overarching mechanisms that govern complex biological phenomena.< |