

## Discrete mathematics of neural networks: selected topics

Anthony, Martin, author

Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20442716&lokasi=lokal>

---

### Abstrak

This concise, readable book provides a sampling of the very large, active, and expanding field of artificial neural network theory. It considers select areas of discrete mathematics linking combinatorics and the theory of the simplest types of artificial neural networks. Neural networks have emerged as a key technology in many fields of application, and an understanding of the theories concerning what such systems can and cannot do is essential.

The author discusses interesting connections between special types of Boolean functions and the simplest types of neural networks. Some classical results are presented with accessible proofs, together with some more recent perspectives, such as those obtained by considering decision lists. In addition, probabilistic models of neural network learning are discussed. Graph theory, some partially ordered set theory, computational complexity, and discrete probability are among the mathematical topics involved. Pointers to further reading and an extensive bibliography make this book a good starting point for research in discrete mathematics and neural networks.