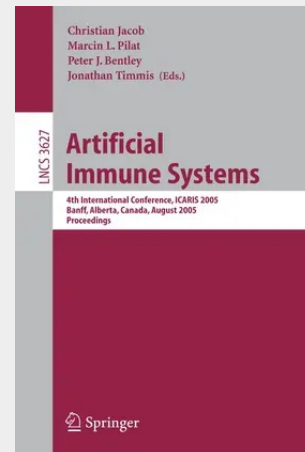


Artificial Immune Systems

4th International Conference, ICARIS 2005, Banff, Alberta, Canada, August 14-17, 2005, Proceedings

Your immune system is unique. It is in many ways as complex as your brain, but it is not centred in one location, like the brain. It is not a single organ—it consists of many different cell types, diverse methods of intercellular communication, and many different organs. Its functionality is blurred throughout you—we can't extract the immune system, or point to where it begins and ends. The immune system is not separable from the system it protects. It has integral links to every organ of our bodies. This has radical implications for the field of Artificial Immune Systems (AIS), that we are only now beginning to comprehend. One of the first insights is that modelling the immune system, or developing any kind of immune algorithm, is difficult. The immune system is one aspect of biology that we find difficult to apply simple reductionist explanations to. We can very successfully extract some processes of the whole and create immune algorithms based on those processes. But we are always aware that we are missing the whole story. This is leading to more holistic views of immune algorithm development: theoretical analyses of how the sub-components contribute to the whole, and identification of missing elements. Artificial immune systems are now beginning to incorporate ideas of innate as well as adaptive immunity, more complex intercellular communication mechanisms, endocrine and neural interfaces, concepts of tissue and broader ideas of organism and environment. So perhaps the most exciting implication for the future of AIS is that these researchers are on the forefront of unconventional computing—merging the boundaries between biology and traditional computation to achieve new emergent, embodied and distributed processing capabilities.



53,49 €

49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540281757

Medium: Buch

ISBN: 978-3-540-28175-7

Verlag: Springer

Erscheinungstermin: 04.08.2005

Sprache(n): Englisch

Auflage: 1. Auflage 2005

Serie: Theoretical Computer Science and General Issues

Produktform: Kartoniert

Gewicht: 1590 g

Seiten: 508

Format (B x H): 155 x 235 mm

