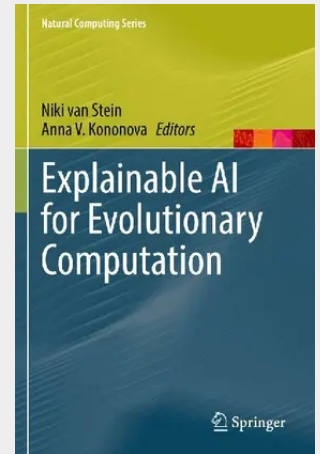


Explainable AI for Evolutionary Computation

This book explores the intersection between explainable artificial intelligence (XAI) and evolutionary computation (EC). In recent years, the fields of XAI and EC have emerged as vital areas of study within the broader domain of artificial intelligence and computational intelligence. XAI seeks to address the pressing demand for transparency and interpretability in AI systems, enabling their decision-making processes to be scrutinised and trusted. Meanwhile, EC offers robust solutions to complex optimisation problems across diverse and challenging domains, drawing upon the principles of natural evolution. While each field has made significant contributions independently, their intersection remains an underexplored area rich with transformative potential.

This book charts a path towards advancing computational systems that are transparent, reliable, and ethically sound. It aims to bridge the gap between XAI and EC by presenting a comprehensive exploration of methodologies, applications and case studies that highlight the synergies between these fields. This book will serve as both a resource and an inspiration, encouraging researchers and practitioners within XAI and EC, as well as those from adjacent disciplines, to collaborate and drive the development of intelligent computational systems that are not only powerful but also inherently trustworthy.

This book explores the intersection between explainable artificial intelligence (XAI) and evolutionary computation (EC). In recent years, the fields of XAI and EC have emerged as vital areas of study within the broader domain of artificial intelligence and computational intelligence. XAI seeks to address the pressing demand for transparency and interpretability in AI systems, enabling their decision-making processes to be scrutinised and trusted. Meanwhile, EC offers robust solutions to complex optimisation problems across diverse and challenging domains, drawing upon the principles of natural evolution. While each field has made significant contributions independently, their intersection remains an underexplored area rich with transformative potential. This book charts a path towards advancing computational systems that are transparent, reliable, and ethically sound. It aims to bridge the gap between XAI and EC by presenting a comprehensive exploration of methodologies, applications and case studies that highlight the synergies between these fields. This book will serve as both a resource and an inspiration, encouraging researchers and practitioners within XAI and EC, as well as those from adjacent disciplines, to collaborate and drive the development of intelligent computational systems that are not only powerful but also inherently trustworthy.



181,89 €

169,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9789819625420

Medium: Buch

ISBN: 978-981-962542-0

Verlag: Springer

Erscheinungstermin: 04.05.2026

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2026

Serie: Natural Computing Series

Produktform: Kartoniert

Gewicht: 355 g

Seiten: 195

Format (B x H): 155 x 235 mm

