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Special Issue Reprint

Differential Equations and Inverse Problems

Edited by: Tao Liu , Qiang Ma and Songshu Liu

The present reprint contains 12 articles that have been accepted and published in the Special Issue "Differential Equations and Inverse Problems" in MDPI's *Axioms* journal. The articles cover a wide range of topics with respect to the theory and applications of differential equations and inverse problems. The key topics covered in this Special Issue include impulsive delay differential equations, fractional differential equations, the Rayleigh–Stokes equation with a fractional derivative, the Monge–Ampère equation, one-dimensional heat conduction, dynamic complex matrix inversion, collocation methods, the Runge–Kutta method, the Tikhonov regularization method, convolution neural networks, supervised contrastive learning, zeroing neural networks, etc. Differential equations and inverse problems have become a rapidly growing topic because of the new techniques developed recently and the amazing achievements in computational sciences. With the progress of science and technology, differential equations and inverse problems have quickly developed, and new waves have been successively set off in a broad range of disciplines, such as mathematics, physics, engineering, business, economics, earth science, biology, etc. We hope that the reprint will be interesting and useful for those working in the areas of differential equations, inverse problems, and artificial intelligence, in addition to those who have a mathematical background and want to familiarize themselves with recent advances in differential equations and inverse problems, which have been widely applied in many fields of science and engineering.

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