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Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Invited Papers -- Random-Walk Based Approximate k-Nearest Neighbors Algorithm for Diffusion State Distance -- 1 Introduction -- 2 Background -- 2.1 Notation -- 2.2 Diffusion State Distance (DSD) -- 2.3 Construction of k Nearest-Neighbor Set Based on DSD -- 3 Approximate kNN Set Construction -- 3.1 Random-Walk Based kNN Set Construction for X -- 3.2 Random-Walk Based kNN Set Construction for X"0365X -- 4 Numerical Experiments -- 4.1 Information About the Data Sets -- 4.2 Numerical Results on Approximate kNN Set Construction -- 4.3 Numerical Results on Function Prediction -- 5 Conclusions -- References -- Model Reduction for Large Scale Systems -- 1 Introduction -- 2 Petrov-Galerkin Based Model Reduction for PDE Constrained Optimization -- 2.1 Petrov-Galerkin Based Discretization and Model Reduction -- 2.2 A Posteriori Error Estimation for an Error Aware Algorithm -- 2.3 Trust-Region Optimization Approach and Adaptive Enrichment -- 3 Numerical Experiments -- 3.1 Model Problem: Quadratic Objective Functional with Elliptic PDE Constraints -- 3.2 Analysis of the Error Behavior -- 3.3 TR-RB Algorithm -- 4 Concluding Remarks -- References -- Fractional Diffusion Problems: Numerical Methods, Algorithms and Applications -- Constructions of Second Order Approximations of the Caputo Fractional Derivative -- 1 Introduction -- 2 Approximations of the Second Derivative -- 3 Second

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