

Editorial

Optimization Problems via Best Proximity Point Analysis

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Many problems arising in different areas of mathematics such as optimization, variational analysis, differential equations, mathematical economics, and game theory can be modeled as fixed point equations of the form $x = T(x)$, where T is a given mapping, in the framework of different kinds of spaces. However, such equations do not necessarily possess a solution especially when T is a nonself mapping. In such situations, it is necessary to find at least one approximate solution x^* (called a best proximity point) that is optimal in the sense that the distance between x^* and $T(x^*)$ is minimum. Best proximity point analysis (BPPA) deals with the theory (existence, uniqueness stability, and qualitative properties) of the best proximity points.

The aim of this special issue is to bring together the qualified outstanding results and the latest achievements in best proximity point analysis and the related applications. The papers included in this special issue deal with the BPPA in different contexts, such as ordered metric spaces, gauge spaces, Banach spaces without strict convexity property, and hyperconvex metric spaces, as well as for different types of mappings, such as α - ψ -contraction mappings, relatively nonexpansive mappings, cyclic mappings, rational proximal contractions, and relatively continuous mappings.

As editors of this special issue, the most difficult problem that we came across was to choose the best papers from the 37 high-quality works. The papers published in this special issue are original and contain some attractive, resourceful, and recognizable ideas. Our motivation in choosing articles for publication in this special issue was whether the submitted papers activate and inspire further scientific activities in the

research field of best proximity point analysis and, hence, in that of fixed point theory and its applications.

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