

## TOPOLOGICAL UP-ALGEBRAS<sup>1</sup>

AKARACHAI SATIRAD AND AIYARED IAMPAN<sup>2</sup>

*Department of Mathematics*  
*School of Science, University of Phayao*  
*Phayao 56000, Thailand*

**e-mail:** akarachai.sa@gmail.com  
aiyared.ia@up.ac.th

### Abstract

In this paper, we introduce the notion of topological UP-algebras and several types of subsets of topological UP-algebras, and prove the generalization of these subsets. We also introduce the notions of quotient topological spaces of topological UP-algebras and topological UP-homomorphisms. Furthermore, we study the relation between topological UP-algebras, Hausdorff spaces, discrete spaces, and quotient topological spaces, and prove some properties of topological UP-algebras.

**Keywords:** topological UP-algebra, quotient topological space, topological UP-homomorphism.

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<sup>2</sup>Corresponding author.

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