

**Title:** Orthomonoids

**Author(s):** Junying Guo, Xiaojiang Guo, Zhiyuan Li and Kar Ping Shum

Orthomonoids are a common generalization of OS-rpp semigroups and orthogroups. After obtaining many characterizations of orthomonoids, we establish the construction of orthomonoids in terms of bands and Clifford restriction semigroups. As applications, we obtain new constructions of OS-rpp semigroups, ortho-c-monoids and orthogroups.

**Address:**

Junying Guo  
College of Science and Technology  
Jiangxi Normal University  
Gongqing City, Jiujiang, Jiangxi 332020  
P. R. China

**Address:**

Xiaojiang Guo  
Provincial Center for  
Applied Mathematics Jiangxi  
and  
School of Mathematics and Statistics  
Jiangxi Normal University  
Nanchang, Jiangxi 330022  
P. R. China

**Address:**

Zhiyuan Li  
School of Mathematics and Statistics  
Jiangxi Normal University  
Nanchang, Jiangxi 330022  
P. R. China

**Address:**

Kar Ping Shum  
Institute of Mathematics  
Yunnan University  
Kunming, Yunnan 650091  
P. R. China