



**GRÖBNER-SHIRSHOV BASES FOR THE WEYL
GROUPS OF THE 3-EXTENDED AFFINE
ROOT SYSTEMS OF TYPE A_1**

Tadayoshi Takebayashi

Received September 9, 2013

Abstract

We give Gröbner-Shirshov bases for the Weyl groups of the 3-extended affine root systems of types $A_1^{(1,1,1)}$, $A_1^{(1,1,1)*}(1)$, $A_1^{(1,1,1)*}(2)$, $A_1^{(1,1,1)*}(3)$, $A_1^{(1,1,1)*}(4)$ and $A_1^{(1,1,1)*}(5)$.

Keywords and phrases: Gröbner-Shirshov basis, Weyl group.

Pioneer Journal
of Mathematics
and Mathematical
Sciences



Pioneer Scientific
Publisher