
MARINA TVALAVADZE, University of Saskatchewan

Universal enveloping algebra of a symplectic anti-Jordan triple system

In this work we are concerned with the universal associative envelope of a finite-dimensional symplectic anti-Jordan triple system (AJTS). We prove that if T is a triple system as above, then there exists an associative algebra $U(T)$ and an *injective* homomorphism $\varepsilon : T \rightarrow U(T)$ where $U(T)$ is an AJTS under the triple product defined by $(a, b, c) = abc - cba$. Moreover, $U(T)$ is a universal object with respect to such homomorphisms. We explicitly determine PBW-basis of $U(T)$, structure constants and the center $Z(U(T))$.