WEIL REPRESENTATIONS OF THE CAYLEY—KLEIN HERMITIAN SYMPLECTIC CATEGORY

S.S. Moskaliuk

Bogolyubov Institute for Theoretical Physics,
Nat. Acad. Sci. of Ukraine
(*14b, Metrolohichna Str., Kyïv 03143, Ukraine,
e-mail: mss@bitp.kiev.ua*)

S u m m a r y

A method of the categorical extensions of Cayley—Klein groups is applied. The method uses the Cayley—Klein spaces as objects of the Cayley—Klein category endowed with all possible linear relations or bilinear forms as morphisms. The constructed induced representations of Cayley—Klein groups are transported to the constructions of Weil representations of the Cayley—Klein classical Hermitian categories by categorification. The explicit form of the Weil representations of the Cayley—Klein Hermitian symplectic category is given.