Genus-generation correspondence is one of the basic ideas of TGD approach.
In order to answer various questions concerning the plausibility of the
idea, one should know something about the dependence of the elementary
particle vacuum functionals on the vibrational degrees of freedom for the
partonic 2-surface.

The construction of the elementary particle vacuum functionals based on
Diff invariance, 2-dimensional conformal symmetry, modular invariance plus
natural stability requirements indeed leads to an essentially unique form
of the vacuum functionals and one can understand why $g>0$ bosonic
families are experimentally absent and why lepton numbers are conserved
separately.

An argument suggesting that the number of the light fermion families is
three, is developed. The crux of the argument is that the partonic
2-surfaces coding for quantum states are for the maxima of K\"ahler action
hyper-elliptic, that is possess Z_2 conformal symmetry, which for $g>2$
implies that elementary particle vacuum functional vanishes.

Although the the original model of elementary particle have been modified
and replaced with more complex one, the basic idea about the origin of
three generations remains intact.

%\end{abstract}