

In this chapter a rather detailed view about the realization of Langlands correspondence (LC) is discussed. The geometric and function field versions naturally correspond to each other and the LC itself boils down to the condition that cobordisms for the function pairs (f_1, f_2) defining the space-time surfaces as union of regions defined by their roots are realized as flows in the infinite-D symmetry group permuting space-time regions as roots of a function pair (f_1, f_2) acting in the "world of classical worlds" (WCW) consisting of space of space-time surfaces satisfying holography = holomorphy principle.

Space-time surfaces form an algebra with respect to multiplication and this algebra decomposes to a union of number fields. This suggest a dramatic revision of what computation means physically. The standard view of computation as a construction of arithmetic functions is replaced with a physical picture in which space-times as 4-surfaces have interpretation as almost deterministic computations. Space-time surfaces allow arithmetic operations and also the counterparts of functional composition and iteration are well-defined. This would suggest a dramatic generalization of the computational paradigm and it is interesting to ponder what this might mean.

This also leads to a vision about the geometric correlates of arithmetic and even more general mathematical consciousness based on the vision about space-time surfaces as generalized numbers and providing also a representation of the ordinary complex numbers.