Boundary distributions on the Drinfeld period domain for GL_3

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In the classical theory of modular and automorphic forms it has proven to be very useful to realize spaces of such forms in more combinatorial or algebraic ways. Perhaps the most famous instance of such a realization is the relationship between classical modular forms and modular symbols.
In this talk, I will discuss a non-archimedean analogue of this construction, namely the relationship between certain holomorphic discrete series representations on the Drinfeld period domain and spaces of harmonic cocycles on the Bruhat-Tits building for the group GL_3 over a local field of any characteristic. The main novelty is that we allow non-trivial coefficients in a situation beyond the well-known theory for GL_2, which extends work of Schneider and Teitelbaum. I will explain how to construct a residue map and a Poisson kernel in this situation. Moreover, I will explain how the existence of the relevant boundary distributions follows from a non-criticality statement for certain (generalized) automorphic forms. I will describe the currently known cases in which such a non-criticality statement holds and state a general conjecture that covers all cases.