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Vasily A Dolgushev* (vald@temple.edu), 1805 N. Broad St., Wachman Hall, Rm 638, Philadelphia, PA 19122. *Is there a "wormhole" to elements of the Grothendieck-Teichmueller Lie algebra of high degree?* Preliminary report.

The famous Deligne-Drinfeld-Ihara conjecture states that Deligne-Drinfeld (DD) elements generate the Grothendieck-Teichmueller Lie algebra grt. Modern computer algebra systems are not very helpful for verifying this conjecture because the sizes of matrices for the equations from the definition of grt grow very fast. So far the conjecture was verified (by numerical experiments) up to degree 16 and there is some evidence for degrees < 30 . In my talk, I will recall grt and its "action" on Poisson structures. I will speculate about a possibility to use this action to find a "wormhole" to elements of grt of high degree. (Received September 11, 2020)