On a vertex operator algebra of moonshine type

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Abstract:

We call a vertex operator algebra $V=\oplus_{n\in V_n} \mbox{ "moonshine type" if its central charge is 24, it has a non-degenerated invariant bilinear form$ $$\langle\cdot,\cdot \rangle$, and its character $\sum_{n\in V_nq^{n-1}} is $j(\tau)-744=q^{-1}+196884q+...$.$

It was conjectured that such a vertex operator algebra is isomorphic to the moonshine vertex operator algebra.

In my talk, I will show a few results for such a vertex operator algebra.