

Oneiric Numbers

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original link: <https://functor.network/user/425/entry/176>

Note that \uparrow is not a number: it is the value of a game, which is a more subtle concept. Also note that $\frac{1}{\uparrow}$ is not defined since it would be bigger than all surreal numbers and there are no such numbers. (In fact, it does exist but is one of the Oneiric numbers.)

More Infinite Games - **Conway**

Given

$$\begin{aligned} +_0 &= \{0||0|0\} = \{0|*\} = \uparrow \\ +_{\text{on}} &= \{0||0|\text{off}\} = \text{pip}_0 = \text{tiny} \\ \text{over} &= \frac{1}{\text{on}} \end{aligned}$$

Consider an inversion such that

$$\begin{aligned} \text{on} &= \frac{1}{\text{over}} \\ \frac{1}{\uparrow} &= \frac{1}{+_0} = I \\ \frac{1}{+_{\text{on}}} &= \frac{1}{\text{tiny}} = \text{huge} \end{aligned}$$

Define $\mathbb{O}\text{ne}(\text{iric } \#s)$ as the domain of games from $\text{massive}(-\text{huge}) \rightarrow \text{huge}$:

$$\mathbb{O}\text{ne} = \{huge|\text{massive}\}$$