

Eine Woche, ein Beispiel

7.2. compactifications of \mathbb{N}

Rmk. As topo gp, we have

$$\begin{aligned} \text{Spec } \mathbb{Z} &\cong \text{cofinite topo with one generic pt} \\ \neq \{ \frac{1}{n} \mid n \in \mathbb{Z}_{>0} \} \cup \{0\} &\cong \text{one pt compactification of } \mathbb{N} \\ \neq \beta\mathbb{N} \end{aligned}$$

https://en.wikipedia.org/wiki/Stone%E2%80%93Cech_compactification

Jan van Mill has described $\beta\mathbb{N}$ as a "three headed monster"—the three heads being a smiling and friendly head (the behaviour under the assumption of the continuum hypothesis), the ugly head of independence which constantly tries to confuse you (determining what behaviour is possible in different models of set theory), and the third head is the smallest of all (what you can prove about it in ZFC).

\exists arg-ogs $\langle u, e, s, a, z, \dots \rangle$ is not domain or exis-ence.
for $n \geq 2$, $K \subset \subset U \subseteq \mathbb{C}^n$.