

Burali-Forti's Paradox

Naproche formalization:

Marcel Schütz

2024

Burali-Forti's Paradox, named after Cesare Burali-Forti, demonstrates that the collection **Ord** of all ordinal numbers is a proper class [**BuraliForti1897**].

Theorem (Burali-Forti's Paradox). **Ord** is a proper class.

Proof. Assume the contrary. **Ord** is transitive and every element of **Ord** is transitive. Hence **Ord** is an ordinal. Thus $\mathbf{Ord} \in \mathbf{Ord}$. Contradiction. \square

Copyright

This work is licensed under a [Creative Commons](https://creativecommons.org/licenses/by-nc-sa/4.0/) "Attribution-NonCommercial-ShareAlike 4.0 International" license.

