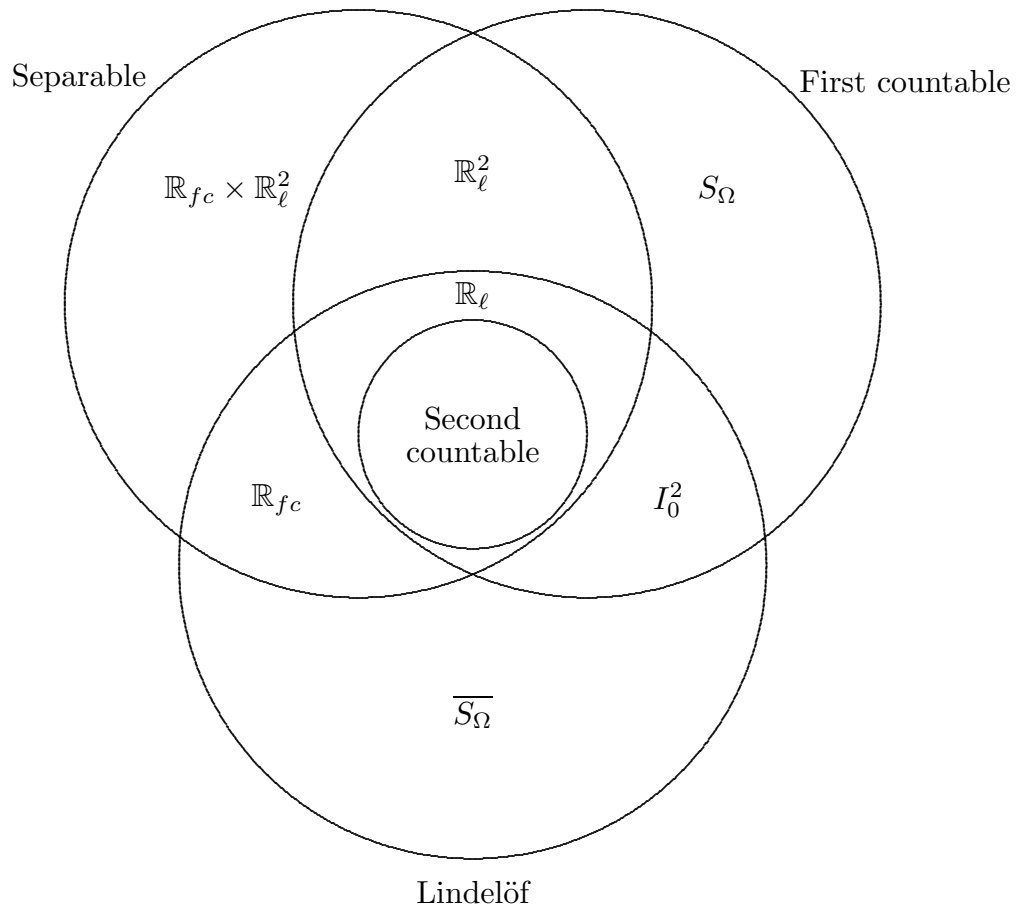


Heritability of countability properties

	First Countable	Second Countable	Lindelöf	Separable
Continuous image	$i : \mathbb{R} \rightarrow \mathbb{R}_{fc}$		Y	Y
under open mapping	Y	Y	–	–
Subspace	Y	Y	$S_\Omega \subset \overline{S_\Omega}$	–
closed subspace	–	–	Y	$\{x + y = 0\} \subset \mathbb{R}_\ell^2$
Countable product	Y	Y	\mathbb{R}_ℓ^2	Y

Relations of countability properties



\mathbb{R}_{fc} : \mathbb{R} in the finite complement topology.

\mathbb{R}_ℓ : \mathbb{R} in the lower limit topology.

I_0^2 : $[0, 1] \times [0, 1]$ in the dictionary order topology.