Mathematics, Statistics, and Computer Science   **@ UIC**

Louise Hay Logic Seminar

Anti-Choice Axioms and the Dual of ℓ^∞

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Abstract: In most functional analysis courses, ℓ^1 is often an example of a Banach space that is not reflexive; that is, $(\ell^1)^*$, the dual space of ℓ^1, is ℓ^∞, but $(\ell^\infty)^* \supsetneq \ell^1$.

However, this argument requires the Axiom of Choice. In fact, we will show that under a certain anti-choice axiom, that $(\ell^\infty)^* = \ell_1$.

Thursday, October 18 at 4:00 PM in 427 SEO