Comments for my paper
"An ordering for the Banach spaces". *Pacific J. Math.* **108** (1983) 83–98.

- **implicitly used in Prop. 15:**
  If $\mathfrak{Z} \prec \mathfrak{Y}$, then $\mathfrak{F}(\mathfrak{X}, \mathfrak{Y}) \subseteq \mathfrak{F}(\mathfrak{X}, \mathfrak{Z})$. See [*], below.

- **actually proved in Prop. 3:**
  $\mathfrak{F}(\mathfrak{X}, c_0) = \{\alpha \in \mathfrak{X}^{**} \ : \ \alpha \text{ is sequentially continuous on } (\mathfrak{X}^*, w^*)\}$

- Wilansky, Mazur spaces, *Internat. J. Math. & Math. Sci.* **4** (1981) 39–53:
  A "μB-space" is a space satisfying the condition of Mazur.
  If $0 \to \mathfrak{Y} \to \mathfrak{X} \to \mathfrak{Z} \to 0$ is exact, $\mathfrak{Y}$ reflexive, and $\mathfrak{Z}$ is μB, then $\mathfrak{X}$ is μB.

- Kappeler, Banach spaces which are opposite to Grothendieck spaces:
  A "d-complete" space is a space satisfying the condition of Mazur.
  If $0 \to \mathfrak{Y} \to \mathfrak{X} \to \mathfrak{Z} \to 0$ is exact, $\mathfrak{Y}$ and $\mathfrak{Z}$ are d-complete, and $B_{\mathfrak{X}^*}$ is w^*-sequentially compact, then $\mathfrak{X}$ is d-complete.
  If $\mathfrak{X} \prec c_0$ and $B_{\mathfrak{X}^*}$ is sequentially compact, then $L_1(\mu, \mathfrak{X}) \prec c_0$.

- **Tauberian operators:**
  Neidiger & Rosenthal, Longhorn Notes 82–83, pp. 211–221.

- $J(\eta) \prec J(\omega)$ for $\eta < \omega_1$.

- G. Emmanuele, A characterization of Banach spaces with the property (V^*) of Pelczynski:
  The complemented l^1-property of this paper is equivalent to "Pelczynski's condition (V^*)".
  $l^1(\Gamma)$, Γ measurable, is a counterexample to question (a).

- **Talagrand's counterexample:**
  Talagrand, A new type of affine Borel function, *Math. Scand.* **54** (1984) 183–188.

- **Related:**
  Gonzales & Oneiva, Ideal functions and operator ideals.
  [*] $\mathfrak{Z} \prec \mathfrak{Y} \iff \mathfrak{F}(\mathfrak{X}, \mathfrak{Y}) \subseteq \mathfrak{F}(\mathfrak{X}, \mathfrak{Z})$ for all $\mathfrak{X}$.

- Riddle, An application of Edgar's ordering of Banach spaces. In: *Analysis at Urbana,* Cambridge Univ. Press, 1989.

- **Characterization:**
  Let $\mathfrak{X}$ and $\mathfrak{Y}$ be Banach spaces. Then $\mathfrak{X} \prec \mathfrak{Y}$ if and only if: any bounded net (x_ξ) in $\mathfrak{X}$ such that (Tx_ξ) converges weakly in $\mathfrak{Y}$ for all operators $T : \mathfrak{X} \to \mathfrak{Y}$ must converge weakly in $\mathfrak{X}$.

• Answer to a question in a letter from Riddle.

Write $\mathfrak{m}_2$ for the least two-valued-measurable cardinal and $\mathfrak{c}$ for the cardinal of the continuum. *If* $\mathrm{card}\,\Gamma \geq \mathfrak{m}_2$, *then* $l_1(\Gamma) \not\prec l_\infty$.

Proof. Let $T : l_1(\Gamma) \to l_\infty$ be a bounded linear map. Since $\mathrm{card}(l_\infty) = \mathfrak{c}$, there is a set Γ_1 of cardinality $\leq \mathfrak{c}$ (we can take $\Gamma_1 = l_\infty$, for example) and a map $\theta : \Gamma \to \Gamma_1$ so that T factors $l_1(\Gamma) \to l_1(\Gamma_1) \to l_\infty$, say $T = \widetilde{T} \circ V$, where $V(e_\gamma) = e_{\theta(\gamma)}$ on the standard unit vectors.

Now if $\alpha \in \mathrm{ca}(\Gamma, \mathscr{P}(\Gamma))$ is a 2-valued measure vanishing on singletons, then $V^{**}(\alpha) \in \mathrm{ca}(\Gamma_1, \mathscr{P}(\Gamma_1))$ is a 2-valued measure, hence $V^{**}(\alpha) \in l_1(\Gamma_1)$. Thus $T^{**}(\alpha) \in l_\infty$, so $\alpha \in \mathfrak{F}(l_1(\Gamma), l_\infty)$. This shows that $l_1(\Gamma) \not\prec l_\infty$.