

Meeting: 1003, Atlanta, Georgia, SS 22A, AMS Special Session on Spaces of Vector-Valued Functions, I

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G. Androulakis and **K. Beanland*** (beanland@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208, and **S. J. Dilworth** and **F. Sanacory**.
Embedding ℓ_∞ into the Dual Space of Nuclear Operators on Certain Banach Spaces. Preliminary report.

We give sufficient conditions on a Banach space X which ensure that ℓ_∞ embeds in $\mathcal{L}(X)$, the space of all operators on X . We say that a basic sequence (e_n) is quasisubsymmetric if it dominates all of its subsequences, and for every sequence (I_n) of intervals of positive integers with $\max(I_n) < \min(I_{n+1})$ there exists a sequence (m_n) with $m_n \in I_n$ such that (e_{m_n}) dominates (e_{k_n}) for all (k_n) satisfying $k_n \in I_n$. One of our main results is that if X is a Banach space having a seminormalized quasisubsymmetric basis, such that X^* has the approximation property. Then $\ell_1 \hookrightarrow \mathcal{N}(X)$ complementably. (Received October 01, 2004)