Prof. Dr. Johann Boos
FernUniversität in Hagen

The summability hull and the (separable) FK-hull of sequence spaces

On the one hand, Hahn's theorem tells that each convergence domain containing χ, the set of all sequences of 0′s and 1′s, includes ℓ^∞, the set of all bounded sequences. On the other hand, it is easy to verify that for each unbounded sequence x there exists a matrix such that its convergence domain includes ℓ^∞ but does not contain x. Thus ℓ^∞ is the intersection of all convergence domains containing χ. In this sense ℓ^∞ is the 'summability hull' of χ. Moreover, replacing in this definition 'convergence domains' by 'FK-spaces' and by 'separable FK-spaces' we get respectively the notions 'FK-hull' and 'separable FK-hull' of sequence spaces. In this talk some results and open problems around these types of hulls of arbitrarily given sequence spaces will be presented (cf. [1]).

References

[1] J. Boos, T. Leiger, and M. Zeltser. The intersection of matrix domains including a given sequence space. *Houston J. Math.* **32**(1), 205–225 (electronic) (2006).