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**Pedro Tradacete\*** (tradacete@ub.edu), Dep. of Applied Mathematics and Analysis, University of Barcelona, Gran Via de les Corts Catalanes 585, 08007 Barcelona, Spain. *Positive operators on Banach lattices and domination properties.*

Let us consider the following problems concerning operators between Banach lattices:

**Domination problem:** Let  $0 \leq S \leq T : E \rightarrow F$ . Under which conditions on  $E$  and  $F$  does  $S$  satisfy property (P) provided  $T$  satisfies (P)?

**Power problem:** Let  $0 \leq S \leq T : E \rightarrow E$ . When is there  $n \in \mathbb{N}$  such that if  $T$  satisfies (P), then  $R^n$  also satisfies (P)?

A classical result of Dodds-Fremlin asserts that for  $(P)$  = “being compact”, the first problem has a positive answer when  $E^*$  and  $F$  are order continuous and the second problem is solved for  $n = 3$  (both being optimal). We will present several recent results for other properties such as Banach-Saks property [FT], strict singularity [FHT] and summability [PST].

**REFERENCES:**

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[PST] C. Palazuelos, E. A. Sanchez-Perez, P. Tradacete. Maurey-Rosenthal factorization for p-summing operators and Dodds-Fremlin domination. (preprint) (Received September 21, 2010)