

1063-47-61

**Gilles Pisier\***, pisier@math.tamu.edu. *Operator space structures on  $L_p$ -spaces*. Preliminary report.

We will describe a new operator space structure on  $L_p$  ( $1 < p < \infty$ ) and compare it with the one introduced in our previous work using complex interpolation. For the new structure, the Khintchine inequalities and Burkholder's martingale inequalities have a very natural form: the span of the Rademacher functions is completely isomorphic to the operator Hilbert space  $OH$ , and the square function of a martingale difference sequence  $d_n$  is  $\Sigma d_n \otimes \bar{d}_n$ . (Received August 02, 2010)