AN F. AND M. RIESZ THEOREM FOR STRONG H^1-FUNCTIONS

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An F. and M. Riesz Theorem states that a function in H^1 vanishes either almost everywhere or almost nowhere. As a result of this theorem, we can see that if $f, g \in H^1$, then

$$fg = 0 \text{ a.e.} \Longrightarrow \text{either } f = 0 \text{ a.e. or } g = 0 \text{ a.e.} \tag{1}$$

However, the statement (1) is liable to fail for operator-valued functions because they have zero divisors. Thus we may ask under what condition on operator-valued functions f and g does the statement (1) hold ? In this talk, we extend the statement (1) for strong H^1-functions.
This talk is based on a joint work with In Sung Hwang.

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