

2016학년도 1학기

# 수학전공 Colloquium

제 목

Bishop-Phelps-Bollobas theorem for bilinear forms

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초 록

We study Bishop-Phelps Bollobás theorem for bilinear forms.

The very first version of Bishop-Phelps-Bollobás type result was for the linear functionals as follows.

(Bishop-Phelps-Bollobás theorem) Let  $X$  be a Banach space.

If and  $x \in S_X$  and  $x^* \in S_{X^*}$  satisfy  $|x^*(x) - 1| < \varepsilon^2/4$ , then there exist  $y \in S_X$  and  $y^* \in S_{X^*}$  such that  $y^*(y) = 1$ .  $\|x^* - y^*\| < \varepsilon$  and  $\|x - y\| < \varepsilon$ .

We introduce some results and history. Specially, we show that this theorem holds for bilinear forms on  $C(K) \times C(K)$  when the spaces are complex Banach spaces and  $K$  is compact Hausdorff space.

일 시

3월 25일 금요일 5시

장 소

5E102