

Banach Algebras 2009

*A conference supported by the European Science Foundation under the
ESF-EMS-ERCOT partnership*

*July 14-24, 2009, Stefan Banach International Mathematical Center, Będlewo,
Poland*

Ying-Fen Lin, Department of Mathematics, National Dong Hwa University,
Hua-Lien 970, Taiwan; (linyf@mail.ndhu.edu.tw)

***Completely bounded disjointness preserving operators on the Fourier
algebras.***

ABSTRACT. Let G and H be locally compact groups, $A(G)$ and $A(H)$ be the Fourier algebras on G and H , respectively. A linear operator $\varphi : A(G) \rightarrow A(H)$ is called a *disjointness preserving operator* if $\varphi f \cdot \varphi g = 0$ in $A(H)$ whenever $f \cdot g = 0$ in $A(G)$. When the groups G and H are amenable, we show that every completely bounded disjointness preserving operator from $A(G)$ onto $A(H)$ is a weighted completely bounded homomorphism induced by a piecewise affine map.