Aleksej Turnsek* (aleksej.turnsek@fmf.uni-lj.si), University of Ljubljana, 1000 Ljubljana, Slovenia. Circular two-sided multiplications.

We will consider circular and strongly circular two-sided multiplications $\phi(X) = AXB$ acting on $B(\mathcal{H})$ or on minimal norm ideals of $B(\mathcal{H})$. We will prove that strong circularity of $\phi$ implies circularity of $A$ or of $B$. If $A$ and $B$ are irreducible and $\phi$ is acting on some minimal norm ideal different from the Hilbert-Schmidt class, then $\phi$ is strongly circular if and only if $A$ or $B$ is strongly circular. These results partially answer a question posed by F. Botelho, J. Jamison, B. Zheng, *Circular operators on minimal norm ideals of $B(\mathcal{H})*, Linear Multilinear Algebra 61 (2013), no. 10, 1339–1347. (Received August 19, 2015)