1113-47-47 **Balint Farkas*** (farkas@uni-wuppertal.de), Bergische Universität Wuppertal, Faculty of Mathematics und Natural Sciences, Gaussstrasse 20, 42119 Wuppertal, Germany. *The periodic decomposition problem for one-parameter semigroups.*

Given commuting power-bounded linear operators $T_1, \dots, T_n$ on a Banach space the periodic decomposition problem, orginally due to I.Z. Ruzsa, asks whether and under which conditions the equality $\ker(T_1 - I) \cdots (T_n - I) = \ker(T_1 - I) + \cdots + \ker(T_n - I)$ holds true. In this talk we consider the case when $T_j = T(t_j)$, $t_j > 0$, $j = 1, \dots, n$ for some (strongly continuous) one-parameter semigroup $(T(t))_{t \geq 0}$. We also look at a generalization of the periodic decomposition problem when instead of the cyclic semigroups $\{T_j^n : n \in \mathbb{N}\}$ more general semigroups of bounded linear operators are considered. (Received August 03, 2015)