

SEMINARIUM
INSTYTUTU MATEMATYKI
UNIWERSYTETU SZCZECIŃSKIEGO

zaprasza na wykład :

**RIESZ BASIS PROPERTY OF
EIGENFAMILIES OF INFINITESIMAL
OPERATORS
APPLICATIONS TO EVOLUTION
EQUATIONS**

który wygłosi:

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ABSTRACT:

Theory of strongly continuous semigroups is classical theory, which provides natural framework for the study of abstract differential equations on Banach spaces. The existence of Riesz basis of eigenvectors (invariant subspaces) of the operator is very useful in various applications. A decade ago Xu, Yung and Zwart obtained a general result on a Riesz basis property for eigenvectors (invariant subspaces) of infinitesimal operators (XYZ theorem).

We are going to discuss the prehistory of XYZ theorem, give its proof for the case of simple eigenvalues and present the construction of infinitesimal operators with eigenvalues, clustering at $i\infty$ and corresponding complete minimal non-basis sequence of eigenvectors. Finally, using this construction, we show that XYZ theorem is sharp.

**Wykład odbędzie się 01 października 2020 r. (czwartek)
o godz. 12.00 w sali 212
w budynku Wydziału Matematyczno – Fizycznego.**