INSTITUTUL DE MATEMATICA "SIMION STOILOW" AL ACADEMIEI ROMANE

## Conferinta

## When can one find a smooth and periodic orthonormal basis of the range of a smooth and periodic orthogonal projection?

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Abstract: Consider a family of orthogonal projections which depend smoothly and periodically on a parameter $k$ in $\boldsymbol{R}^{d}$ with $d \leq 3$. Assume that the range has dimension $m<\infty$. We give a constructive procedure of constructing a Parseval frame for the range of the projection which contains $m+1$ smooth and periodic vectors. One can find an orthonormal basis of smooth and periodic vectors if and only if the first Chern numbers of the projection family are zero.

Marti 18 iulie 2017, ora 10:00, sala 306 -307 "C. Bănică"

