

Contribution Title: PT-SYMMETRIC MODELS IN CURVED MANIFOLDS  
Authors: P. Siegl, D. Krejčířik  
Presenting author: Siegl P.  
Affiliation: Doppler Institute, Prague  
E-mail: siegl@ujf.cas.cz  
Invited speaker:  
YRS seminar: YES

We introduce non-Hermitian models in curved two-dimensional manifolds based on strip-like geometries with  $\mathcal{PT}$ -symmetric boundary conditions. We present both analytic and numerical results on the study of interplay between geometry and spectrum. Basic properties of the operators are proved by perturbative methods.

We particularly investigate models defined on manifolds of the constant curvature and subject to  $\mathcal{PT}$ -symmetric Robin boundary conditions. We show the interesting spectral effects caused by the curvature.

This is a joint work with David Krejčířik.