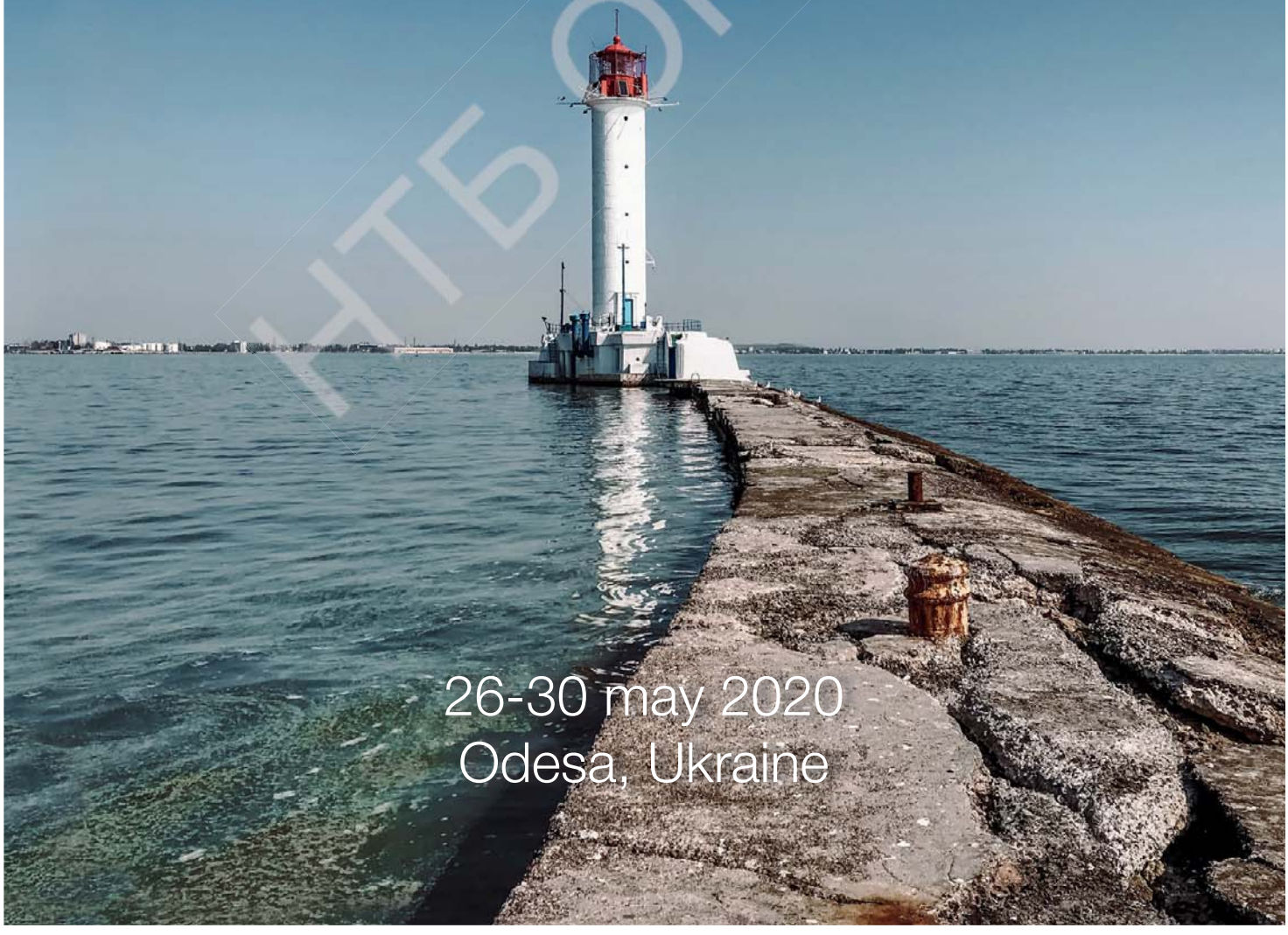
International
Scientific Conference

Algebraic and Geometric Methods of Analysis



26-30 may 2020
Odesa, Ukraine

List of topics

- Algebraic methods in geometry
- Differential geometry in the large
- Geometry and topology of differentiable manifolds
- General and algebraic topology
- Dynamical systems and their applications
- Geometric problems in mathematical analysis
- Geometric and topological methods in natural sciences

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A recurrent (CHR)-curvature tensor field in a trans-Sasakian manifold

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A tensor field T in a Riemannian manifold is called *recurrent* if it satisfies $\nabla_X T = A(X)T$ for a certain 1-form A which is called *recurrent 1-form*, where ∇ means the covariant differentiation with respect to the Riemannian metric.

Recently, we introduced the notion of (CHR)-*curvature tensor field* in an almost contact Riemannian manifold.

In this talk, we consider the (CHR)-curvature tensor field is recurrent in a trans-Sasakian manifold M, that is, $(\nabla_U(CHR))(X,Y,Z,W) = A(U)(CHR)(X,Y,Z,W)$ for any tangent vector fields U,X,Y,Z,W on M. Then, we show that the Riemannian curvature tensor (resp. (CHR)-curvature tensor) is written by A, α and β.