

My recent research interests are concentrated around three main topics: Homological Mirror Symmetry for manifolds of general type, existence of special tensor structures on compact 4-manifolds, and geometry of compact complex parallelizable manifolds.

Publications

- [1] A. Kapustin, D. Orlov, L. Katzarkov, M. Yotov *Homological mirror symmetry for manifolds of general type*; Accepted in Central European Journal of Mathematics. (2009)
- [2] J. Davidov, G. Grantcharov, O. Mushkarov, M. Yotov *Para hyper-hermitian surfaces*; Accepted in Bull Math Soc Sci Math Roumanie. (2009)
- [3] D. Auroux, S. Donaldson, L. Katzarkov, M. Yotov *Fundamental groups of complements of plane curves and symplectic invariants*; Topology 43 (2004), no. 6, 1285–1318.
- [4] M. Yotov *Nadel's subschemes of Fano manifolds X with Picard group $\text{Pic}(X)$ isomorphic to \mathbb{Z}* ; Serdica Math. Journal, Vol. 23, No. 2 (1997).
- [5] M. Yotov *Nadel's sheaves and properties of some vector bundles on Fano manifolds*; Izv. Akad. Nauk, Seria Matemat., Vol. 58, 5 (1994).
- [6] M. Yotov *A generic Torelli-type theorem for singular algebraic curves with an involution*; PAMS, Vol. 111, No. 3, March 1991.

Work in progress

- [1] F. Bogomolov, F. Soloviev, M. Yotov *Curves in semi-simple parallelizable manifolds*; Submitted in Central European Journal of Mathematics. (2009)
- [2] F. Bogomolov, F. Soloviev, M. Yotov *Realization of holomorphic one-forms and hyperbolic curves in parallelizable manifolds*
- [3] J. Davidov, G. Grantcharov, O. Mushkarov, M. Yotov *Generalized pseudo Kahler structures and neutral hermitian surfaces*; Pre-print
- [4] M. Yotov *Holomorphic symplectic structure on the space of $SL(2, \mathbb{C})$ -characters of hyperbolic Riemann surfaces*