Results of my research.

- [1]. Isotropic immersions and parallel immersions of space forms into space forms; [4]. Isotropic immersions of rank one symmetric spaces into real space forms and mean curvatures; [6]. Isotropic immersions of complex space forms into real space forms and mean curvatures; [7]. Isotropic immersions and parallel immersions of Cayley projective plane into a real space form; [8]. Characterization of parallel immersions of real space forms into real space forms (in Japanese).

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  Using inequalities with respect to the mean curvature, we provide a sufficient condition for isotropic immersions of compact Riemannian symmetric spaces of rank one into a real space form to be parallel.

- [2]. Isotropic immersions with low codimension of complex space forms into real space forms; [10]. Isotropic immersions with low codimension of space forms into space forms.

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  Using an inequality with respect to the codimension, we provide a sufficient condition for isotropic immersions of space forms into a real space form to be parallel.

- [3]. Study of isotropic immersions (with Sadahiro Maeda).

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  This is an expository paper about isotropic immersions.

- [5]. Remarks on real Lie groups with a complex Lie algebra.

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  Giving an example, we make sure that a disconnected real Lie group $(G, \cdot)$ is not always a complex Lie group with respect to the same group operation "$\cdot$" even if there exists a complex structure on the Lie algebra of G.

- [9]. Symplectic homogeneous spaces and adjoint orbits (in Japanese).

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  We explain a relationship between symplectic homogeneous spaces (G, H, Ω) with G semisimple and the adjoint orbits. By virtue of the

relationship, we clarify a structure of (G, H, Ω) with G noncompact simple and H compact, and classify their infinitesimal versions.

- [11]. Local symplectic homogeneous spaces, and compact semi-simple Lie groups.

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  We classify all infinitesimal versions of symplectic homogeneous spaces whose transformation group are compact semi-simple; moreover, we prove that these spaces are Kählerian homogeneous spaces.

- [12]. Certain geometrical properties of semisimple orbits.

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  We characterize Armand Borel & Harish-Chandra's Theorem from geometrical point of view; moreover, we explain a relationship between semisimple orbits and affine symmetric spaces.