

Research Activity Program (Akio Kawauchi)

This year's research activities include the following plans.

- (0) Relationship between the crossing number of a link and the ribbon number of a spun torus-link.
- (1) A study of complexities of a graph knitting pattern.
- (2) A study of linking probability of a spatial arc system.
- (3) A study of an orthogonal 2-sphere basis in stable 4-sphere.
- (4) A study of a diffeomorphism of the 4-sphere.
- (5) A new development on topological imitations of $(3,1)$ -manifold pairs.
- (6) A study on realization problem of the linking form of a surface-knot.
- (7) A study of unimodular Hermitian form over integral Laurent polynomial ring via smooth manifold.