

The study on almost contact confoliations is focused on four subjects:

- i) Convergence of contact structures into a Poisson structure: Suppose that a contact manifold admits a torus fibration such that the Reeb vector field X is tangent to each fiber. In this case a construction of a Birkhoff section of X was developed in [13]. Applying it, we will construct a symplectic open-book decomposition with prescribed binding associated to a specific contact structure. If the binding satisfies certain conditions, a result in [11] provides a family of almost contact confoliation between the contact structure and a Poisson structure. Indeed the result in [13] is obtained by following this procedure.
- ii) Complex singularity: A spinning contact submanifold is a generalization of closed braid other than a braided submanifold. It is an immersion or embedding which pulls-back the standard open-book to a symplectic open-book. We will describe specific complex singularities from this point of view. While a Milnor fibration looks only at the monodromy of the pulled-back open-book, a spinning further concerns the braiding, i.e., how it is immersed or embedded.
- iii) Contact vs Legendrian submanifold: If a closed contact $(2n + 1)$ -manifold is immersed in a contact $(4n + 3)$ -manifold as a Legendrian submanifold L , the immersion can be perturbed into a contact immersion since any neighbourhood of the 0-section of the cotangent bundle T^*L has a section realizing it. This also implies that L has no information about the contact structure. On the other hand, if a contact $(2n + 1)$ -manifold is immersed in a contact $(4n + 1)$ -manifold as a union of Legendrian submanifolds, it inherits a codimension one foliation. Further if it is the limit of a family of contact submanifolds, their contact structures converge to the foliation. See [8] for an example. We are looking for other examples.
- iii) Twisted Jacobi structures: Poisson structure (leafwise symplectic structure), Jacobi structure (leafwise contact structure) and their imitations have been studied by many authors including physicists. The notion of twisted Jacobi structure essentially due to Weinstein is an extremely broad one including both Poisson structure and contact structure. As is described in [11], our almost contact confoliation is also a twisted Jacobi structure. Improving the formulation in [11], we will build a satisfactory notion of almost contact confoliation.
- iv) Three dimensionality: Eliashberg's h-principle for overtwisted contact structures holds in all odd dimensions no differently than in three dimension. On the other hand, Martínez Torres found "taut core" of a corank one Poisson structure on a closed manifold in the case where $d\omega = 0$. Here a taut core is a 3-dimensional submanifold Γ which meets each leaf of the Poisson structure at a single leaf of a taut foliation on Γ . These suggest that any almost contact confoliation could have a reduction to three dimensional object. We seek further evidences.