Q: How many non-diffeomorphic contact 3-manifolds are there on a given manifold? In particular $S^{2n-1}$?

- Given $(M, \xi)$ compact, can one say anything about the normal bundle of geodesic periodic Reeb orbits $V \subset \ker \xi \in \xi$ (possibly on a submanifold)?

**Tool:** $S^1 \subset S^3$; [Viterbo, Schwarz, Bourgeois-Oancea (more? when $C^1$ bounds)]

**Def:** A Liouville domain is a pair $(W, \Omega)$: $\Omega$ symplectic, $\partial W = M$ inwards (on $M$), $\Omega|_M = \omega$ for a contact form $\omega$. Let $\hat{\omega} = \omega \wedge \Omega$, $\hat{\omega} = \frac{\xi^\perp}{\xi^\perp}$. $\omega = \Omega^\perp|_M$. 

\[ \hat{\omega} = \hat{\omega} \wedge \Omega^\perp, \quad \omega = \frac{\xi^\perp}{\xi^\perp} \wedge d(\frac{\xi^\perp}{\xi^\perp}) \wedge \Omega^\perp. \]