A basic invariant of symplectic four manifolds is the Kodaira dimension κ. Symplectic four manifolds with $\kappa = -\infty$ are well understood. For those with $\kappa = 0$, there is a conjectured list, and their rational homology types have been classified.

A minimal symplectic four manifold with $\kappa = 0$ has torsion symplectic canonical class, and thus can be called a symplectic Calabi-Yau surface. In this talk I will discuss the topology and geometry of symplectic CY surfaces, including a joint work with A. Tomassini on almost Kahler CY structures and almost Kahler cones of such manifolds.