Abstract. Knot Floer homology is a refinement of Heegaard Floer homology, providing an invariant for a pair (a 3-manifold, a knot in it). For knots in the 3-sphere, the invariant 'categorifies' the Alexander polynomial, and provides further interesting information about knots. In its most general form the construction provides a bifiltered chain complex.

Recently, in collaboration with P. Ozsvath and Z. Szabo, we have found a new way of getting knot invariants out of this chain complex, leading to a 1-parameter family of concordance invariants, called the Upsilon-invariant of the knot. I will explain the idea behind the definition, and show a simple application of the Upsilon-function.