

# Legendrian Surfaces

Roger Casals, MIT

In this talk I will discuss Legendrian surfaces through their wavefronts in 3-dimensional space and some of their applications. First, we shall introduce wavefronts and discuss their microlocal and pseudoholomorphic features; I will then prove a series of results which allows us to compute these invariants. As applications, we will establish a relation with colorings of planar graphs, study affine complex varieties with knots and understand mirror symmetry with wavefronts.