

If L is an immersed Lagrangian surface with only transverse double points, we can perform surgery on those double points to produce a Lagrangian which is embedded, but has higher genus. This talk will discuss the converse statement, whether a Lagrangian with genus comes from such a surgery, in the context of Lagrangian fillings of Legendrian knots. A difficulty is that an immersed filling is often categorically isomorphic to an embedded filling, and so it is not clear how standard tools would detect this. The main result constructs, for every g, k , a Legendrian knot with a genus g immersed filling with k double points, but no genus $g-1$ filling with $k+1$ double points. This is joint work with O. Capovilla-Searle, N. Legout, M. Limouzineau, Y. Pan, and L. Traynor.