RYAN BUDNEY, Mathematics and Statistics, University of Victoria, PO Box 3045, STN CSC, Victoria, BC, V8W 3P4
Smooth embeddings of 3-manifolds in the 4-sphere

An old theorem of C. T. C. Wall's states that every 3-manifold admits a smooth embedding in the 5-sphere. So if M is a closed 3-manifold different from the 3-sphere, the lowest-dimensional sphere that it embeds in is either 4 or 5. This talk will explore what is known about which closed 3-manifolds admit smooth embeddings into the 4-sphere.