SALIM DEAIBES, University of Toronto
Minimal Two-Spheres in Three-Spheres with an Arbitrary Metric

In this talk, I will explain how we prove that every Riemannian three-sphere contains at least two embedded minimal two-spheres or admits an optimal foliation by two-spheres; I will also explain why we are unable to conclude the existence of two solutions in general. This improves results of White and Haslhofer-Ketover where the existence of at least two solutions has been established under the additional assumption that the metric has positive Ricci curvature or is generic, respectively.