CHRISTINA TØNNESEN-FRIEDMAN, Union College, Schenectady, NY
Extremal Sasakian Geometry on $T^2 \times S^3$ and Cyclic Quotients

This talk is based on joint work with Charles Boyer.

We prove the existence of extremal Sasakian structures occurring on a countably infinite number of distinct contact structures on $T^2 \times S^3$ and certain cyclic quotients. These structures occur in bouquets and exhaust the Sasaki cones in all except one case in which there are no extremal metrics. We also show that there is a unique ray of extremal Sasaki metrics with constant scalar curvature in each admissible extremal Sasaki cone.