Abstract:

The talk will indicate the key features in the proof of the minimal model theorem for foliations by curves, which despite their possibly chaotic nature more closely parallels semi-stable reduction of curves (in arbitrary dimension) rather than the MMP for varieties. Indeed since vanishing theorems are false, it is ironically Mori Theory as Mori intended since everything must be done via the study of invariant rational curves. Highlights include simple local criteria for canonical foliation singularities, a simple classification of (foliated) Fano objects, and an explicit (foliated) flip theorem by way of the study of formal neighbourhoods of extremal rays.