Braid foliations

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Braid foliation techniques, first introduced by Bennequin and then developed by Birman and Menasco, have proven to be highly useful for studying links represented by closed braids in the 3-sphere, both in the topological and contact geometric settings. In these talks we present the key ingredients of braid foliations, and use these to develop proofs of fundamental theorems in braid theory, including Markov's Theorem and the generalized Jones conjecture. Time permitting, we will also introduce the open book foliation theory of Ito and Kawamuro for braids in general open book decompositions, and discuss related open problems. by closed braids in the 3-sphere, both in the topological and contact geometric settings. In these talks we present the key ingredients of braid foliations, and use these to develop proofs of fundamental theorems in braid theory, including Markov's Theorem and the generalized Jones conjecture. Time permitting, we will also introduce the open book foliation theory of Ito and Kawamuro for braids in general open book decompositions, and discuss related open problems.