

**Hans-Christian v. Bothmer**   University of Hamburg, Germany

DARBOUX INTEGRABILITY VIA SINGULARITIES OF INTEGRAL CURVES

In this talk I would like to explain how singularities of plane integral curves can be used to prove the existence of a rational integrating factor from the geometry of the integral curves alone. As an application one can construct new codimension 11 components of the center variety in degree 3.