Tommaso de Fernex:Â Birational geometry of projective hypersurfaces

I will review old and new results on the birational geometry of hypersurfaces in projective space. The main focus will be on the birational rigidity of Fano hypersurfaces of index one, a problem tracing back to works of Iskovskikh and Manin, and Fano and Segre before them, which has been completely solved in recent years for smooth hypersurfaces. Time permitting, I will also discuss some new results on the birational rigidity of singular hypersurfaces.