clinical findings that obesity and malalignment cause increased risks for incidence of OA, and that the combination of obesity and malalignment further increases risks. The extent of risk attributed to malalignment has been controversial, perhaps due to different methods in OA detection or alignment measures. Our modeling approach, combined with detailed comparisons to clinical data, offers a powerful tool to better understand the etiology and progression of knee OA, and may help us develop more effective exercise and treatment plans.