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The sport of cycling includes a wide variety of racing situations and disciplines. Track races are held both indoors and out in velodromes on an oval track with banked corners; road races are held on flat, hilly, and mountainous courses on urban and rural paved streets; mountain bike and cyclocross races are held on dirt tracks that may include obstacles and hills. Disciplines include individual and team races, sprint and endurance distances, as well as single-day and multi-stage events. In this presentation, we will discuss the assumptions and features of the proposed model and present preliminary simulation results beginning with track events, such as individual and team sprint and pursuit races. We will then explore how the basic model may be adapted to more complicated racing scenarios, such as the road team time trial that includes varied terrain and wind. We conclude with thoughts on how the model may be extended to mass-start road race that may include nearly 200 riders. (Received September 25, 2017)