# QUALITATIVE BIOMECHANICS FOR COACHING

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**Session Information:**

Coaches must apply principles of biomechanics in their qualitative judgments of the technique used by athletes. These judgments can have a major influence on performance and injury risk. This session will focus on the most effective use of qualitative biomechanical analyses and video replay software. Several scholars who have experience teaching qualitative biomechanical analysis to future coaches will present, followed by a question and answer session.

**Schedule of Presentations:**

Dr. Knudson will introduce the session and provide a brief overview of qualitative biomechanical analysis.  11:00 – 11:15

Dr. Alderson will present sport injury models as they apply to assessment, intervention and rehabilitation of common injuries in cricket, tennis and running. Relevant qualitative and quantitative 2D features of *SiliconCoach* that can be utilised by a coach to potentially reduce injury incidence will be presented. 11:15 – 11:45

Dr. Bahamonde will present how qualitative analysis can be used to teach biomechanics concepts to physical education and coaching students.  Movement examples from tennis, soccer and track field and meaningful features of *Hu-m-an* software will be illustrated. *Hu-m-an* is unique in that it was developed with a specific teaching-learning focus. 11:45 – 12:15

Dr. Bird will present biomechanical core concepts as a "common language" to evaluate and improve all human movements. The core concepts are visually observable, but meaningful features of *Dartfish* will be illustrated to enhance what is seen by both the coach and the mover. Movement examples from golf, resistance training, basketball, and other sports will be presented. 12:15 – 12:45

**Discussion:**  12:45 – 13:00

This will provide an opportunity for delegates to ask specific questions relating to any of the presenters.