SELF FUNDED PHD OPPORTUNITY

Enhancing understanding of pacing behaviour during endurance competitions

Research performed at the University of Worcester has investigated the drivers of decision-making during self-paced endurance activity (Renfree et al 2014). Work in running (Renfree & St Clair Gibson 2013; Renfree et al 2016) and rowing (Renfree et al 2012) has described pacing strategies, whereas more recent theoretical work has addressed the likely influence of collective behaviour on pacing during competition (Renfree et al 2015) and described races as complex systems with pacing behaviour displayed being an emergent phenomenon (Renfree & Casado 2018). Rather than studying the influence of factors implicated in the study of pacing in isolation, this work suggested greater understanding of the interactions between these variables is necessary to better explain determinants of observed pacing behaviours and challenged researchers to develop novel methodological approaches that take into account the emergent nature of this phenomenon. An increasing body of experimental work (Venhorst et al 2018, Konings et al 2016) has already started to demonstrate that the presence of 'virtual' competitors in a laboratory environment influence pacing decisions in time trial activities, but such studies do not take account of tactical decision-making in events where the goal is to finish ahead of competitors rather than simply complete an exercise task in the fastest possible time. We therefore invite proposals that seek to enhance understanding of pacing behaviour during endurance competitions and ultimately improve athlete decision-making and consequently performance outcomes. This may involve investigation of the interactions between competitors during endurance competitions as well as experimental work to understand the key drivers of the interactions in field or laboratory settings.

Proposed Supervisory Team:

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