Dear Editor,

We present to you our work furthering the current understanding of the biomechanics of insect adhesion. Insects, relying on their hairy adhesive foot, can effortlessly walk up and down most surfaces. The reversible nature of their adhesive organs has been a subject of extensive studies over the past two decades, many of which have been hosted by your journal. In our present work, using a simple theoretical model, we show that the very nature of these hairy structures provides a level of flexibility in controlling the detachment forces, which might possibly be employed by insects such as beetles to easily detach their legs while walking. The model proposes new explanations to previously reported microscopic observations related to beetle locomotion behaviour.

We believe our presented results will be valuable knowledge to our peers working across the globe in the interdisciplinary field of biomechanics. Since our work is theoretical in nature and provides new insights to the current understanding of insect adhesion, we feel your esteemed journal will provide the ideal platform to communicate our findings to a large audience interested in learning from our work.

We sincerely thank you for taking the time to go through our work and we hope to hear back from you soon.

Regards,

Pranav and Michael