MSc Project

Do you have this Olympic dream or do you like sports and engineering, in particular skating? You can take initiatives, are good in mechanics and go for the gold medal?


klapschaats


langebaan

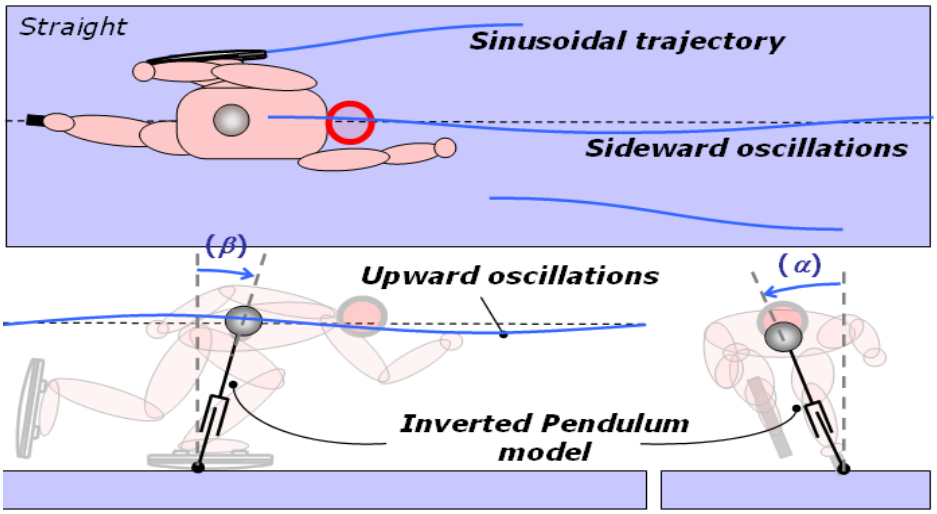

'hoge' schaats

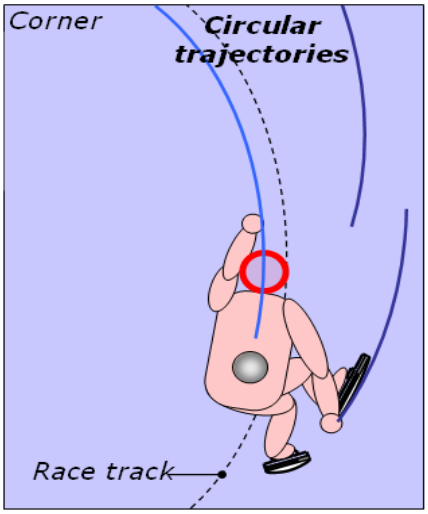

shorttrack

For the best skating results you need the best materials and a good skating technique. But how do you gain speed? What is a good skating technique? Is this the same for all individuals? How can improve my results even more? These questions keep modern topskaters constantly busy. Currently TUDelft in close collaboration with NOC*NSF has some projects in this field with the final goal of more medals and world record!

Simplest Skater Model – Skating technique for champions

To move forward one has to push backwards. In skating one pushes sideways, where the only contact between the ice and the skater is the skate. The skater balances on this thin sharp edge at forward speeds of about 60 km/h!
By means of a simple mechanical model we would like to predict the optimal skate technique. This model should also be able to predict the optimal shape of the skate blade in order to apply this optimal technique.





Questions:	**-What is the simplest skating model able to investigate optimal skate technique?** **-Compare measured skate motion with model results. In what sense is the motion optimal?**

Note:

- Results will be validated in close collaboration with KNSB, NOC*NSF and VU Amsterdam.

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