

---

# Ballista

A prosthetic limb that enables below knee amputee athletes ski jump as a new Winter Paralympics sport

---

Duck-soo Choi, Yue Jiang, Alexdre Kitching, Doina Manuela Neagu

---

Expectations in prosthetic limbs have changed dramatically with people looking to maintain an active lifestyle. In contrast, the Winter Paralympics consists of only six sports. We propose to add ski jumping, which will be made possible with a new below knee amputee prosthetic: **Ballista**. Its structure enables an athlete to be propelled at an optimal angle from the jump point, and supported in his flight. In addition to its primary function of storing energy generated by the athlete during a jump, **Ballista** allows normal walking thereby giving the athlete independence. It is a path un-walked before that would only celebrate the natural motivation found in sports.

---

