



Australian Government  
Australian Research Council

## **MEDIA LEAD**

### ***Linkage Projects Round Two*** **For funding commencing in 2010**

## **New South Wales**

**New South Wales will receive \$19,472,176 for 60 Linkage Projects.**

The University of Sydney will receive \$165,000 over three years for the following project:

#### ***Bodies in space (LP100200245)***

Geometric Mechanics provides new insights into a multitude of mechanical systems, ranging from simple molecules like carbon dioxide to the aerial motion of gymnasts and divers.

The aim of this project is to use this theory to understand how to effectively use the change in the shape of a mechanical system to change its orientation. The goals are to measure, model and optimise the aerial motion of athletes and thus ultimately improve their performance in collaboration with the NSW Institute of Sport. This is an interdisciplinary project that utilises expertise from Applied Mathematics, Sports Science, and Mechanical Engineering in order to achieve these goals.

These knowledge advances will lead to a novel theory regarding the control of the aerial dynamics of athletes, specifically springboard and platform divers. The reach of new insights generated by this work extends to many other fields, including robotics, spacecraft dynamics and nano technology.

#### **Media contacts**

For project information contact Associate Professor Holger Dullin—0458 290 613, or Peter Sinclair—02 9351 9724

For *Linkage Projects* scheme information contact Sheena Ireland—0412 623 056