



Roller Coaster Design

Why is a rollercoaster so exciting and terrifying, yet safe? Modern rollercoasters such as 'Nemesis' are engineered very precisely to create an exciting experience for thrill-seekers. This short album visits Alton Towers theme park in England, and explores the part that mathematicians play in rollercoaster design, using mathematical models to calculate the ride's accelerations and forces to obtain the desired experience. This material forms part of the Open University course MST121 Using mathematics.