

# Cutting science in biology and engineering

Monday 26 – Tuesday 27 October 2015

THE  
ROYAL  
SOCIETY

DAY 1			
SESSION 1 Chair: John A. Nairn		SESSION 2 Chair: Roland Ennos	
9.00	Welcome by the Royal Society & organisers		
9.05	<b>Gordon Williams</b> Fundamentals of cutting	13.30	<b>Timothy Watson</b> Cutting in dentistry
9.40	<b>Maria Charalambides</b> Cutting of soft solids	14.10	<b>Ferdinando Rodriguez y Baena</b> Surgery and puncturing
10.20	Coffee	14.50	Tea
10.45	<b>Roger Hamby</b> What is sharpness?	15.15	<b>Gordon Sanson</b> Cutting in carnivores and herbivores
11.25	<b>Tony Atkins</b> 'Slice-Push': formation of grooves and the scale effect in cutting	15.55	<b>Peter Lucas</b> Abrasive tooth wear as a cutting process
12.10	Discussion	16.35	Discussion
12.30	LUNCH	17.00	CLOSE

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DAY 2				
SESSION 3 Chair: Peter Lucas		SESSION 4 Chair: Tony Atkins		SESSION 5
8.45	<b>Kaoru Kitajima</b> Evolution and plasticity of leaf fracture toughness in species-rich tropical forests	10.45	<b>David Braun</b> Cut marks on bone surfaces: Influences on variation in the form of traces of ancient behaviour	13.40 <b>Chair: Paulo Martins</b> Discussion: machining, weapons and armour
9.10	<b>Nathaniel J Dominy</b> Cutting mechanics reveals the Bayesian reasoning of wild chimpanzees	11.10	<b>Eddie Cheshire</b> Toughness and the penetration of hide-based armour	14.40 <b>Chair: Ton van Vliet</b> Discussion: soft solids and surgical cutting
9.35	<b>Robert Schofield</b> Cutting-tool wear in small organisms	11.35	<b>Philip Anderson</b> Point of impact: the influence of speed and tooth size on puncture mechanics	15.40 <b>Tea</b>
10.00	Discussion	12.00	<b>George Jeronimidis</b> Anisotropy: wood and veneers	16.00 <b>Chair: Roland Ennos</b> Discussion: biology and ecology
10.15	Coffee	12.25	Discussion	17.00 CLOSE
		12.40	LUNCH	