



Art Kuo is Professor of Mechanical Engineering and Biomedical Engineering at the University of Michigan, USA. He received a B.S. in Electrical Engineering from the University of Illinois, and a Ph. D. in Mechanical Engineering from Stanford University. He directs the Human Biomechanics and Control Laboratory at the University of Michigan, with research interests including the dynamics and control of human movement, particularly the use of passive dynamics of the limbs to produce economical locomotion in humans and robots. Other interests include the integration of information from physiological sensors in human balance and self-orientation, the use of haptic feedback in human manipulation and perception, and physiological and metabolic properties of human muscle fibers and motor units. The Laboratory is also engaged in hardware projects such as the development of computer-controlled prosthetic feet for lower limb amputees, and devices to efficiently harvest energy from human motion. A common theme in many of these studies is that the dynamics of the body dictate constraints and abilities that can be harnessed for control, and that conventional control strategies can be improved in terms of effort, economy, and bandwidth through the judicious application of these dynamics.