



This special issue is dedicated to memory of Professor David Rooke. Professor Rooke worked his entire career at the Royal Aircraft Establishment (RAE), Farnborough, UK, later known as QinetiQ. He was one of the pioneering researchers in development of numerical methods for evaluation of stress intensity factors and championed research into computational fracture mechanics within the UK aircraft sector [Rooke, D.P., Baratta, F.I., Cartwright, D.J., 1981. Simple methods of determining stress intensity factors. *Eng. Fract. Mech.* 14, 397–426]. The Compendium of Stress Intensity Factor he published together with Prof. David Cartwright is regarded as a seminal publication, authoritatively compiled and commented upon, and, widely used in academia and industry [Rooke, D.P., Cartwright, D.J., 1979. Compendium of stress intensity factors, HSMO]. Prof. Rooke's early work was on integral transforms, Green's function and point collocation methods which led to solutions for cracks emanating from holes [Tweed, J., Rooke, D.P., 1979. The stress intensity factor for a crack at the edge of a loaded hole. *Int. J. Solids Struct.* 15, 899–906]. These solutions are regarded as the benchmark for accuracy for these type of solutions. Later, he worked extensively on Compounding techniques where he published his thesis [Rooke, D.P., 1984. Compounded stress intensity factors for cracks at fastener holes. *Eng. Fract. Mech.* 19, 359–374]. Later he co-authored a book entitled *Numerical Fracture Mechanics*, published by Kluwer in 1991.

Above all David was a true gentleman, entirely honest in his work, frank in his opinion and always supporting young researchers