

1116-60-1541      **Ivo Mihaylov\*** ([ivo.mihaylov06@imperial.ac.uk](mailto:ivo.mihaylov06@imperial.ac.uk)), Huxley Building, 180 Queens Gate, South Kensington, London, SW7 2AZ, United Kingdom. *A class of approximate Greek weights: high-order schemes and extrapolation techniques.*

This paper defines a class of approximate option sensitivity (Greek) weights and provides high-order approximations and justification for extrapolation techniques. Under certain regularity assumptions on the value function of the pricing partial differential equation, Greek approximations are proved for a fully implementable Monte Carlo framework using weak Taylor discretisation schemes. The variance and bias are studied for the Delta and Gamma for such discrete-time approximations. (Received September 20, 2015)