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$$y(t) = \sum_{n=0}^{\infty} \int \dots \int h_n(\tau_1, \tau_2, \dots, \tau_n) \prod_{i=1}^n u(t-\tau_i) d\tau_i$$

$$= \sum_{n=0}^{\infty} h_n(t) \dots \dots \dots \quad (A-1)$$

The functions $h_n(\tau_1, \tau_2, \dots, \tau_n)$ are known as the Volterra kernels that form the basis of the identification of non-linear systems represented by functional series.