

On explicit interpretation of the FOT formal expressions for continuous-time signals and its estimation using sampled finite-time observations

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An attempt at explicit interpretation of the delta-function notation used for concise FOT description of continuous-time (CT) signals is made. It is shown that it can lead to a conditional partitioning of the time axis where two types of possible intervals may arise more significant practitioners' interest. A FOT density estimator is offered for processing sampled finite-time observations of CT signals. The estimator based on a linear approximation, the simplest one, shows that, compared to the classical estimator approach, the order of samples may have significant impact on the result in some cases.