



INDUCED OVERVOLTAGES ON LV LINES WITH TWISTED CONDUCTORS DUE TO INDIRECT STROKES

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Abstract - This paper presents some results of a study conducted with the aim of evaluating the characteristics of the overvoltages induced on low-voltage lines with twisted conductors due to indirect strokes. In this paper the simulations are performed by means of the Extended Rusck Model (ERM) - a model that has been validated through many comparisons between measured and calculated induced voltages - and enabled the analysis of some aspects not covered in previous studies. The paper discusses the behaviour of the lightning induced voltages, in terms of magnitude and waveform, with respect to parameters such as the stroke current front time, the grounding resistance and the relative position between the line and the lightning strike point.