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### LIGHTNING INDUCED OVERVOLTAGES ON LOW-VOLTAGE LINES

Alexandre Piantini

Institute of Electrotechnics and Energy (IEE/USP)

University of São Paulo, Brazil

Jorge M. Janiszewski

Polytechnic School (PEE-EPUSP)

Av. Prof. Luciano Gualberto, 1289, 05508-900, São Paulo-SP, Brazil. E-mail: [piantini@iee.usp.br](mailto:piantini@iee.usp.br)

**Abstract** – This paper presents some information concerning the characteristics of the voltages induced on low-voltage lines due to nearby lightning. The voltages are calculated by means of an already existing computer program developed at the Institute of Electrotechnics and Energy of the University of São Paulo (IEE/USP), which had been previously validated through comparisons between measured and calculated induced voltages. The simulations enabled an evaluation of the influence of parameters such as the conductors heights, the front time of the return stroke current, the grounding resistance, the distance between the line and the lightning striking point, the grounding spacing and the load characteristics on the induced voltage amplitudes and waveforms.