

# V SIPDA

## V International Symposium on Lightning Protection

17<sup>th</sup> - 21<sup>st</sup> May, 1999

São Paulo - Brazil

### MODELLING OF THREE-PHASE DISTRIBUTION TRANSFORMERS FOR CALCULATING LIGHTNING INDUCED VOLTAGES TRANSFERRED TO THE SECONDARY

Alexandre Piantini

Caius V. S. Malagodi

Institute of Electrotechnics and Energy (IEE/USP)

University of São Paulo, Brazil

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 a transformer model that enables the calculation of transferred voltages to the secondary side, under no-load condition, in case of lightning discharges close to a distribution line. The model, which takes into account the compromise between accuracy and simplicity, has its usefulness confirmed by means of comparisons between theoretical and experimental results.