

# Conference Proceedings



Morro do Cachimbo Station - LRC - Brazil

## **GROUND'2006**

*International Conference on  
Grounding and Earthing*

&

## **2nd LPE**

*International Conference on  
Lightning Physics and Effects*

**November 26-29, 2006**

**Maceió - Brazil**

**SB-RAI:** Brazilian Society for Electrical Protection  
Lightning, Earthing and EMC

**LRC** - Lightning Research Center  
UFMG - CEMIG

**ELAT** - Atmospheric Electricity Group  
INPE

**GROUND'2006**  
*and*  
**2<sup>nd</sup> LPE**

*International Conference on Grounding and Earthing*  
&  
*2<sup>nd</sup> International Conference on*  
*Lightning Physics and Effects*  
*Maceió - Brazil      November, 2006*

**OVERVOL TAGES CAUSED BY DIRECT STRIKES ON DISTRIBUTION LINES**

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**Abstract** - This paper presents the amplitudes and waveforms of the overvoltages on distribution network due to direct strokes on the primary line. Computer simulations were performed by using the ATP (Alternative Transients Program) in order to analyse the influence of some distribution line parameters. Firstly, the overvoltages on medium-voltage (MV) network were considered and later, their respective transference to the low-voltage (LV) network taking into account the distribution transformer, the coupling between the medium and low voltage conductors and the operation of surge arresters.