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Lightning Modeling and Its Effects on Electric Infrastructures

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Deadline for manuscript submissions:
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Message from the Guest Editors

Dear Colleagues,

Infrastructure security and people's safety are the first objectives when it comes to dealing with high voltages or high currents issues. In this framework, lightning studies play a crucial role because of the dangerous consequences of this kind of phenomenon. It is well known that the normal operation of transmission and distribution systems is greatly affected by lightning, which is one of the major causes of power interruptions: lightning causes flashovers in overhead transmission and distribution lines, resulting in overvoltages on the line conductors that are due either to direct strikes or to nearby, indirect strikes.

The aim of this Special Issue will be, in particular, modeling lightning activity, investigating physical causes, discussing and testing mathematical models for the electromagnetic fields associated to lighting phenomena, and statistics on and measurements of the lightning activity, which represent a crucial point both for validating theoretical models as well as for providing numerical values which are able to quantify the risk due to lightning events.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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