

## Abstract

**Do Minh Khoa Patrick, "Analysis of the initiation of upward flashes from tall structures with particular reference to the Säntis tower", 2017.**

Upward lightning flashes (or tower flashes), originated from tall grounded structures, are suggested to be classified as self-triggered or other-triggered based on their preceding lightning events i.e strokes or pulses from cloud-to-ground (CG) or intracloud (IC) discharges occurring around the tower [2][7]. In this paper, we present an analysis of the initiation of upward flashes recorded at the Säntis Tower by examining the data of the lightning events occurring within a predefined temporal and spatial circular constraints, prior as well as after the tower flashes. Two talking-points will be addressed : the first one lies in whether or not preceding event(s) trigger or initiate tower flashes, and how much the polarity of the preceding event(s) plays a role in their initiation. The second one is whether or not tower flashes, in turn, trigger or initiate natural discharges around the tower. These potential causality relations are discussed along with references to a number of former papers on the subject.