

Two propagation scenarios of isolated breakdown lightning processes in failed negative cloud-to-ground flashes

Ivana Kolmašová (1, 2), Ondřej Santolík (1, 2), Eric Defer (3), Petr Kašpar (1), Andrea Kolínská (1, 4), Stéphane Pedeboy (5), Sylvain Coquillat (3)

(1) Department of Space Physics, Institute of Atmospheric Physics of the Czech Academy of Sciences, Prague, Czechia

(2) Faculty of Mathematics and Physics, Charles University, Prague, Czechia

(3) Laboratoire d'Aérodynamique, Université de Toulouse, CNRS, OMP, UPS, Toulouse, France

(4) Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University,

(5) Météorage, Pau, France

Contents of this file

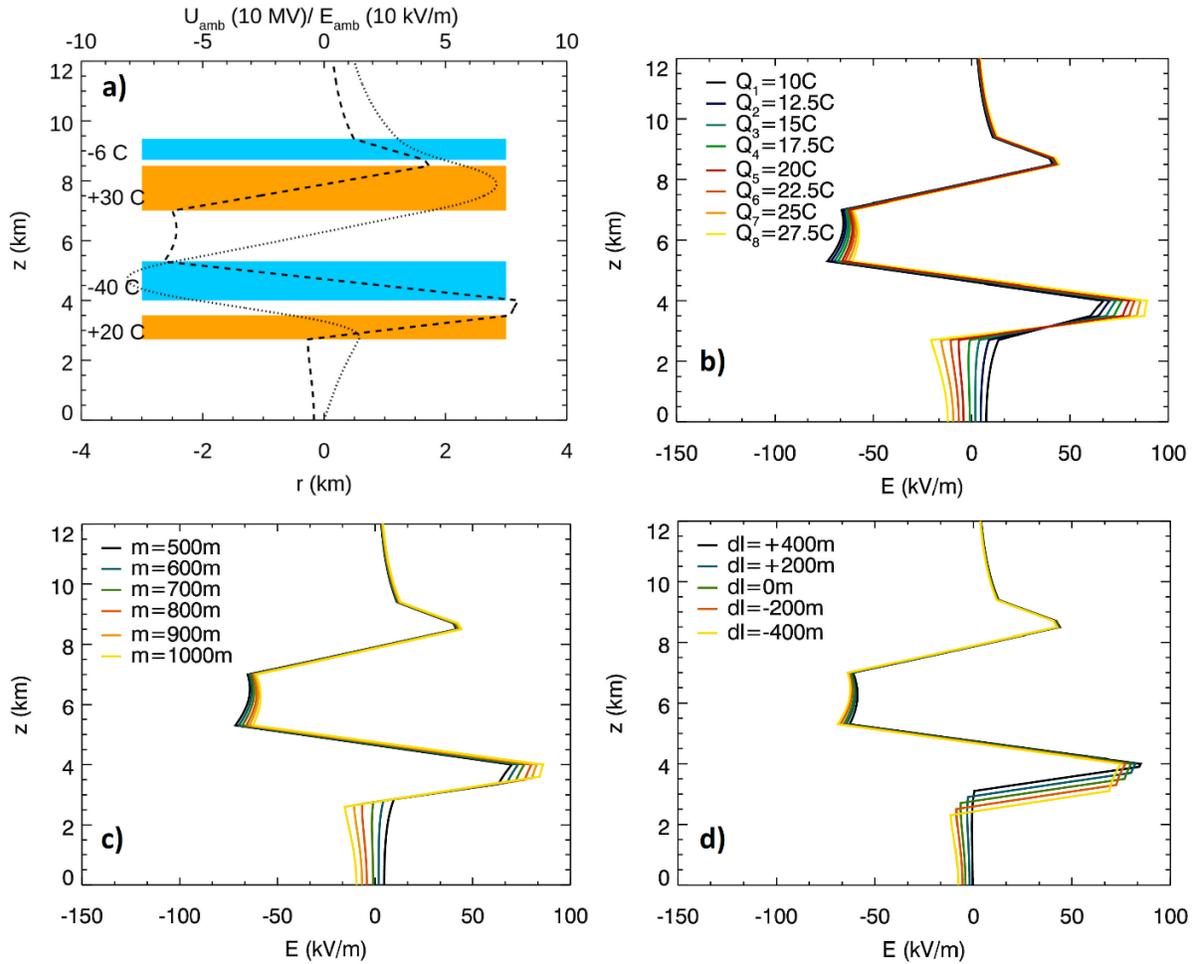
Figure S1: Variations of ambient electric field as a function of properties of the lower positive charge region (LPCR)

Additional Supporting Information (Files uploaded separately)

Movie S1: file ms1.gif

Movie S2: file ms2.gif

Figure S1. (a) Modeled thundercloud charge structure together with an ambient electric potential (dotted line) and an ambient electric field (dashed line), respectively. Variations of ambient electric field as a function of the strength of the LPCR (b), of the width of the LPCR (c), and of its deviation from its basic position located at 2.7 km (d).



Movie S1. Animated gif showing in three dimensions the time sequence of geo-located SAETTA sources belonging to event from the Fig. 1 (2 Oct 2018 at 13:55:19, type A)

Movie S2. Animated gif showing in three dimensions the time sequence of geo-located SAETTA sources belonging to event from the Fig. 2 (13 Oct 2015 at 22:09:30, type B)