



Actively engaging people on rainfall (or any geoscience topic) through short interactive food related activities

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In an area of widespread misinformation, it is crucial for scientists to reach out to the general public and explain their research topic to increase knowledge and, more importantly, to enhance curiosity and to stimulate people to pay more attention to their geophysical environment. The general aim of this research is testing an innovative approach to actively engage people on geosciences topics, in a funny and informal way, through short interactive food-related activities. As rainfall scientists, we carefully designed these activities to unveil part of the underlying complexity of this geophysical field. In particular, we focus on the extreme variability of rainfall over wide ranges of scales in both space and time, of which people are usually unaware despite commonly experiencing rainfall.

Each activity is designed with similar underlying concepts: 1) A single simple take home message on rainfall. 2) The studied feature is visible at first sight to strike people's minds. 3) Real rainfall data is somehow mimicked with food. 4) The activity itself lasts a few minutes. 5) It is designed as a game to foster people's engagement.

Various activities were designed with these specifications. An illustration is the rainfall drop size distribution variability which is highlighted through sweet or salty cookies (ex: macaron / "baci di dama") representing drops variability in shape and in the actual size in their fall. Another illustration is the representation of rainfall monthly distribution and its variability, through the use of glasses with liquid (champagne, soda, water...) height corresponding to rainfall depth during a month. In each case, there is an incentive to engage in the game through the hope of getting the bigger cookie or most filled glass. Activities are implemented in informal settings (family, friends, lab meetings) during either snacks or dinner. In the former case, a single one is carried out while in the latter several ones -typically one per course- are.

In order to evaluate if active engagement is indeed achieved, the following methodology is implemented. During the activity, a previously briefed outside observer fills a pre-defined grid to

assess the level of engagement of people. After the activity, people are invited to let us know about new ideas, observations, questions, and send us pictures on the topic of the activity. The latter step is much more qualitative. As a side product, how the “take home messages” are remembered by people is also partially assessed keeping the informal approach of the activity. Implementation and interpretation of the activities in various contexts will be discussed in this presentation.