

# CALL FOR PAPERS

In modern science, all simple problems have been solved by now. What remains are problems that are so complex that one cannot unravel their mysteries by simple experiments and deductions. Food quality including safety represents one of the main challenging and complex issues in food science field and has been highly topical for the past 10 years in the public debate, in food policy, in industry, and, last but not the least, in research. Largely, food quality refers both to all those hazards, whether chronic or acute, that may make food injurious to the health of the consumer and also to all other attributes that influence a product's value to the consumer: this includes negative attributes such as spoilage, contamination with filth, discoloration, and off-odors and also positive attributes such as the origin, color, flavor, texture, and processing method of the food. The complexity of food quality appears clear if we consider all the above-mentioned aspects. With the development of computer technology, mathematical models underwent tremendous development: use of advanced modelling techniques reduces the complexity in solving also very complex problems with high accuracy in little time. Several efforts were spent in the past for applying mathematical modelling to all the different points of view of the food quality concept but this challenge is nowadays current and deserves more attention.

The purpose of this special issue is to publish high-quality research papers as well as review articles addressing recent advances on mathematical modelling applied to food quality concept from all the possible points of view. Original, high quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences are sought.

Potential topics include but are not limited to the following:

- ▶ Modelling heat and mass transfer during processing and effect on food quality
- ▶ Modelling chemical reactions, mainly due to either oxidation or Maillard or denaturation reactions both during processing and storage
- ▶ Modelling microbial growth in foods in the case of fermentation and spoilage and in the case of pathogens and food safety
- ▶ Modelling of physical reactions such as coalescence, aggregation, and sedimentation as well as texture and color changes during processing and storage
- ▶ Shelf life modelling with reference to storage conditions
- ▶ Modelling food-pack interactions during shelf life
- ▶ Modelling logistic and environmental impact of foods and food production
- ▶ Mathematical prediction of sensory attributes or quality indicators
- ▶ Different approaches for mathematical modelling applied to food quality prediction

Authors can submit their manuscripts through the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/jfq/mma/>.

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