



International Alliance for
Biological Standardization

10th Annual Statistics Workshop: Science & Statistics – Elevating CMC through Partnership

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Statistical Science & Statistical Engineering

Please, write your abstract here. The engineer-scientist Theodore von Kármán said, “Scientists discover the world that exists; Engineers create the world that never was.” Over the centuries, this balancing act of discovery and creation has become one of the main sources of knowledge generation, and economic progress. Statistics is a science, that, as Sir David Cox argues, “provides a unifying set of general ideas and specific methods relevant whenever appreciable natural variation is present.” Because natural variation is almost always present in any scientific and engineering study, and because variation introduces uncertainty, statistics becomes the catalyst that allows us to do better science and engineering. This is because statisticians bring a unique skillset as they are trained to think skeptically, to interrogate assumptions, to consider multiple sources of both variation and bias, and to quantify uncertainty.

In this session we will discuss statistical science, statistical engineering, the role of statistics within the scientific method, some key statisticians who were also scientists and engineers, as well as the key role statisticians play as a part of a scientific and engineering team, not in a service-oriented role, but as scientific collaborators that can help solve complex problems.

