

AKjDPG 4: The Theory of Accurate and Accessible Figure Design

Time: Sunday 16:00–17:30

Location: HS 5+6

Tutorial

AKjDPG 4.1 Sun 16:00 HS 5+6

The theory of accurate and accessible figure design — ●FABIO CRAMERI — Undertone.design, Bern, Switzerland — International Space Science Institute (ISSI), Bern, Switzerland

In the vast landscape of scientific data, graphics serve as a golden key to its comprehension. From the depths of the cosmos to the intricacies of elementary particles, the deliberate use of diagrams, colour, typefaces and fonts, and other graphic elements in scientific visualisation enriches our understanding and enables us to appreciate the beauty and complexity of the natural world. From the properties of the light source to the ultimate recognition in the visual cortex, the study of human visual perception is extensive and has a long history. Cre-

ating accessible and accurate scientific visualization with colour has, in contrast, become easy. All necessary aspects are understood. All necessary tools exist. Here, I will provide you with the basic understanding to use—and not misuse—the most basic graphic elements like colour for visualising everything from the Standard Model of particle physics to the Island of Stability. I will also introduce you to the newest version of the Scientific colour maps and the different palette and gradient types available therein. In just this one lecture, you shall be equipped to navigate the most-basic use of colour in your daily routine. I also hope you will then become an advocate of the scientific use of colour and other basic graphic elements yourself so that after having mastered our theory of everything, we as a community will not fail the one job left: to accurately show it to everybody else.