

Abstract Submitted
for the MAR15 Meeting of
The American Physical Society

Your Higgs number – how fundamental physics is connected to technology and societal revolutions SUZY LIDSTRÖM, Physica Scripta, Royal Swedish Academy of Sciences and Uppsala University, ROLAND E. ALLEN, Texas A&M University — Fundamental physics, as exemplified by the recently discovered Higgs boson, often appears to be completely disconnected from practical applications and ordinary human life. But this is not really the case, because science, technology, and human affairs are profoundly integrated in ways that are not immediately obvious. We illustrate this by defining a “Higgs number” through overlapping activities. Following three different paths, which end respectively in applications of the World Wide Web, digital photography, and modern electronic devices, we find that most people have a Higgs number of no greater than 3. Specific examples chosen for illustration, with their assigned Higgs numbers, are: LHC experimentalists employing the Worldwide Computing Grid (0) - Timothy Berners-Lee (1) - Marissa Mayer, of Google and Yahoo, and Sheryl Sandberg, of Facebook (2) - users of all web-based enterprises (3). CMS and ATLAS experimentalists (0) - particle detector developers (1) - inventors of CCDs and active-pixel sensors (2) - users of digital cameras and camcorders (3). Philip Anderson (0) - John Bardeen (1) - Jack Kilby (2) - users of personal computers, mobile phones, and all other modern electronic devices (3).

Suzy Lidström
Physica Scripta, Royal Swedish Academy of Sciences, and Uppsala University

Date submitted: 14 Nov 2014

Electronic form version 1.4