

INTERCONNECTED ANALOGY AND RESEMBLANCE: FROM CLASSICAL MUSIC TO MODERN SEMICONDUCTOR TECHNOLOGY

JACK JIA-SHENG HUANG & YU-HENG JAN

Source Photonics, Fallbrook Avenue, West Hills, USA

Source Photonics, Park Avenue, Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C

ABSTRACT

The world is becoming more interconnected and inter-dependent. The technologies of two main semiconductor devices (IC and optoelectronics) are also interacting with each other with more integration and interplay. In this paper, we review the evolution of the two semiconductor technologies based on the analogy of the other two main classical music instruments (violin and piano). We discuss the similarity and resemblance of the two seemingly different fields (semiconductor vs. classical music) and use them as guidance for future roadmap of semiconductor development and integration.

KEYWORDS: Semiconductor Technology, Si IC, III-V Compound Semiconductor, Si Photonics, Classical Music, Violin, Piano