"Front-end electronics in imaging calorimetry"

Calorimetry traditionally sets demanding requirements on readout electronics to optimize the physics performance.
Low noise, large dynamic range and high accuracy are therefore at premium in the front-end design, as will be recalled using the examples of LHC experiments.
The next generation of calorimeters will be "imaging calorimeters", allowing detailed view of the elecgromagnetic and hadronic showers in the 4 dimensions of space and time. Millions of readout channels with high performance charge and time measurements are the price to pay for such new technique and the design of the front end electronics will be illustrated with the examples of CALICE and CMS calorimeters.