

First real-time video-rate FLIM system

[MEGAFRAME] May 2009: MEGAFRAME reports on the real-time hardware (FPGA) implementation of a new integration based FLIM lifetime calculation algorithm, called IEM, suitable for SPAD arrays (see ISCAS 2009). This approach enables direct lifetime calculation in parallel for every pixel. To the best of our knowledge, this is the first system that can generate real-time video-rate fluorescence lifetime images.