

SI2-SSE:

PAPI Unifying Layer for Software-Defined Events (PULSE)

Heike Jagode
Anthony Danalis
UNIVERSITY OF TENNESSEE

- GOAL** Offer support for **software-defined events (SDE)** to extend PAPI's role as a standardizing layer for monitoring performance counters.
- VISION** Enable HPC software layers to expose SDEs that performance analysts can use to form a **complete** picture of the entire application performance.
- BENEFIT** HPC application scientists will be able to better understand the interaction of the different application layers, and the interaction with external libraries and runtimes.

All new PAPI SDE API functions are available in C and FORTRAN, e.g.:

```
void *papi_sde_init(char *lib_name);

void papi_sde_register_counter( ..., char *event_name, ..., void *counter);

void papi_sde_register_fp_counter( ..., char *event_name, ..., func_ptr_t fp_counter);

void papi_sde_describe_counter( ..., char *event_name, char *event_description);
```