ROOT based tools for DAQ data analysis of the PITZ gun operation

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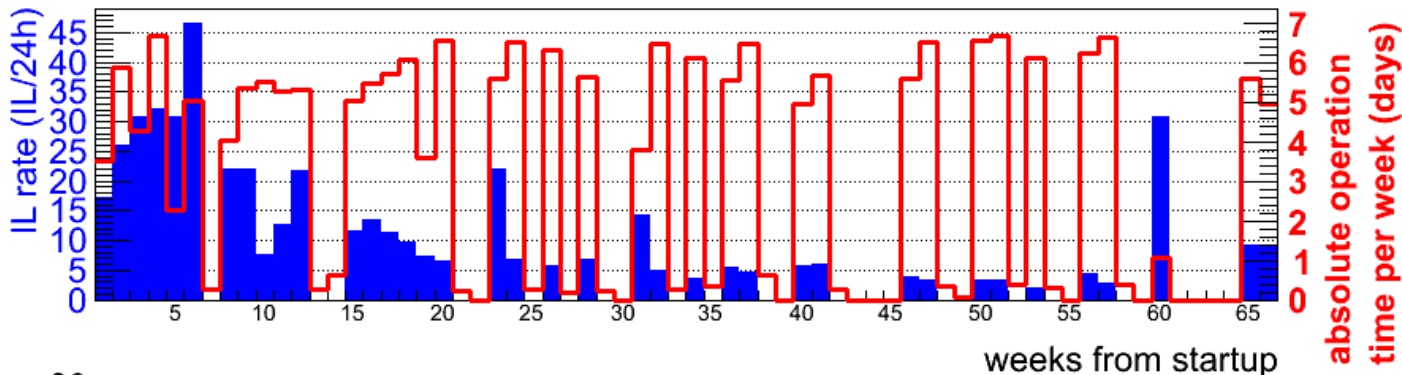
Content of the poster:
- Gun 4.6 setup
- PITZ DAQ system
- ROOT library for DAQ:
  - description
  - basic usage
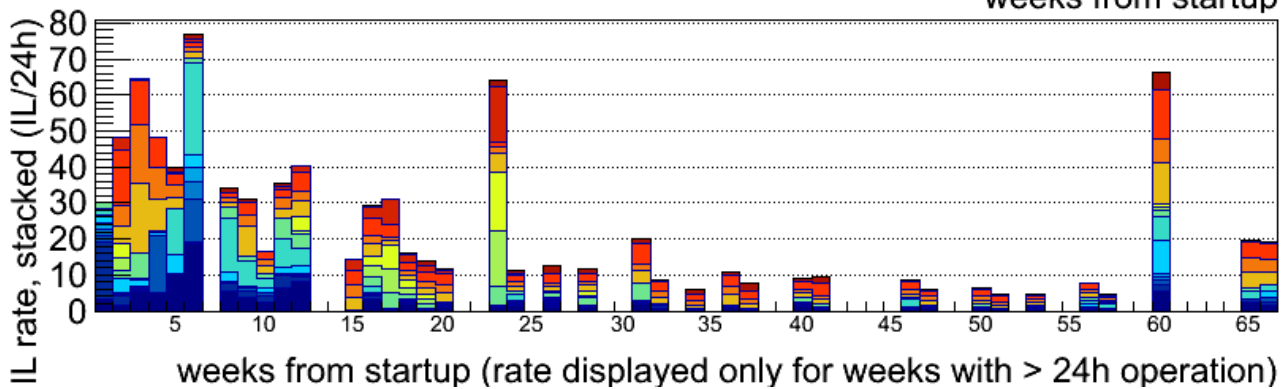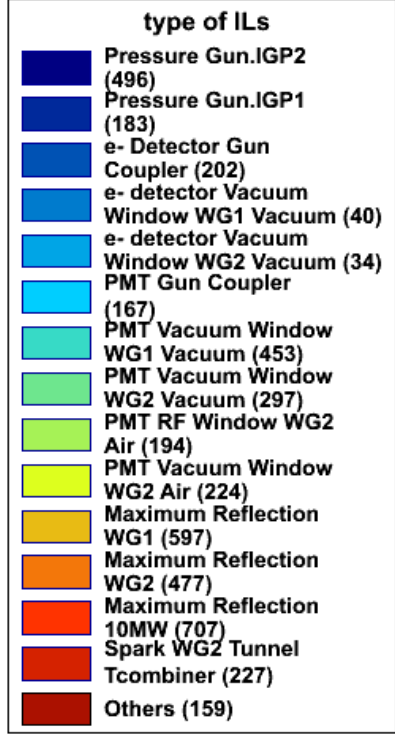 - user classes: run_overview and interlock_data

How to analyze months of data in a few lines !

```
root [0] gSystem->Load("libclasses_data.so");
root [1] time_interval run_gun_4p6("2016/03/07 00:00:00","2017/06/12 00:00:00");
root [2] run_overview overview_gun_4p6;
root [3] overview_gun_4p6.append_from_DAQ(run_gun_4p6);
root [4] overview_gun_4p6.Plot_IL_type(NULL,run_gun_4p6);
```
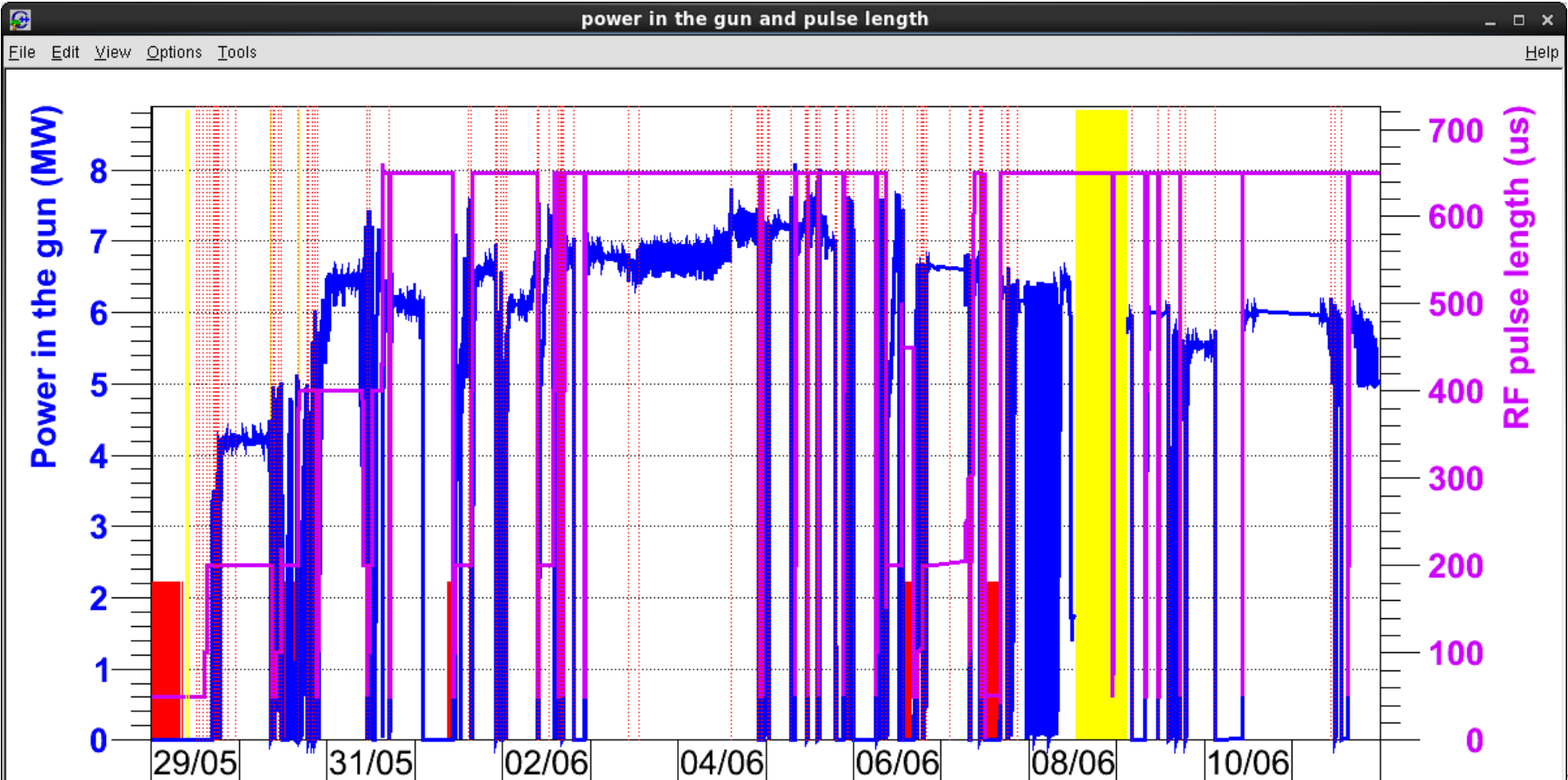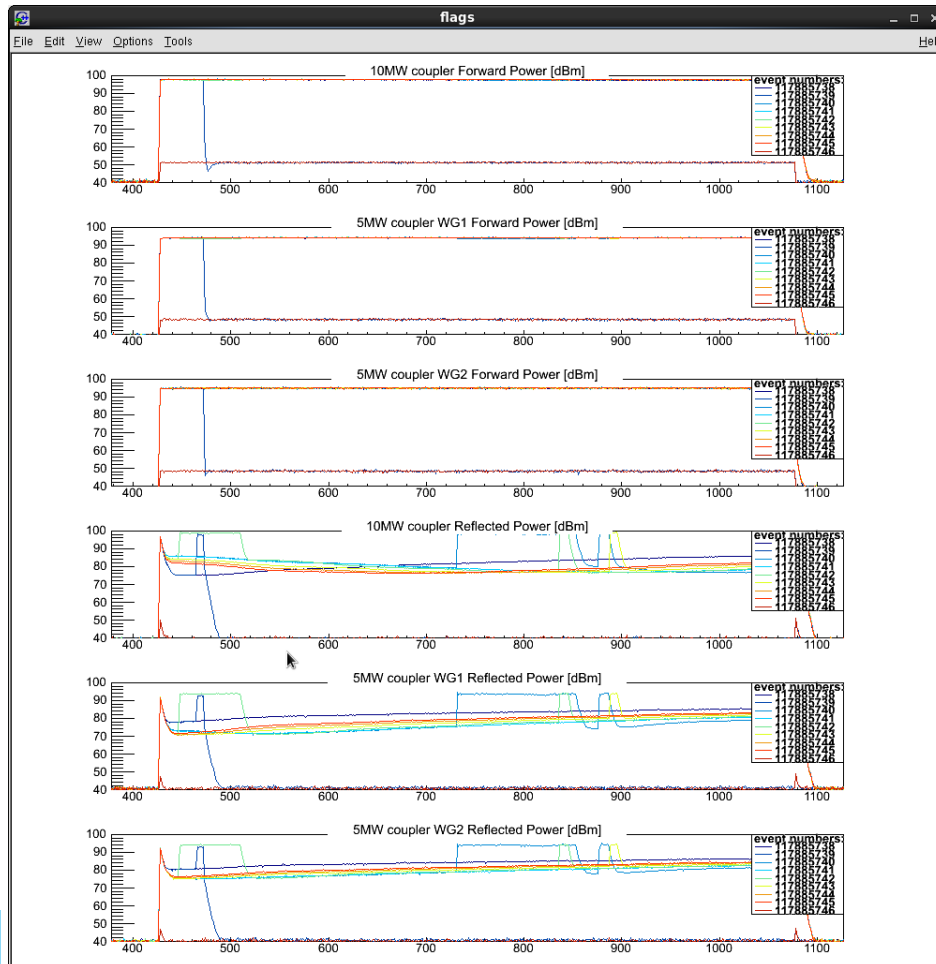
An other example

```
root [0] gSystem->Load("libclasses_data.so");
root [1] time_interval recond_period("2017/05/29","2017/06/11");
root [2] run_overview recond_gun4p6;
root [3] recond_gun4p6.append_from_DAQ(recond_period);
root [4] recond_gun4p6.Plot_Pgun_pulse_length(NULL,recond_period);
```

Interlock analysis

```
root [0] gSystem->Load("libclasses_data.so");
root [1] interlock_data ILdata;
root [2] time_interval ILperiod("2017/06/10 02:52:00","2017/06/10 02:53:00");
root [3] ILdata.append_from_DAQ(ILperiod);
root [4] ILdata.Plot_LILI_couplers(NULL);
```


More at the poster !