HEC Oscillations Correction Studies

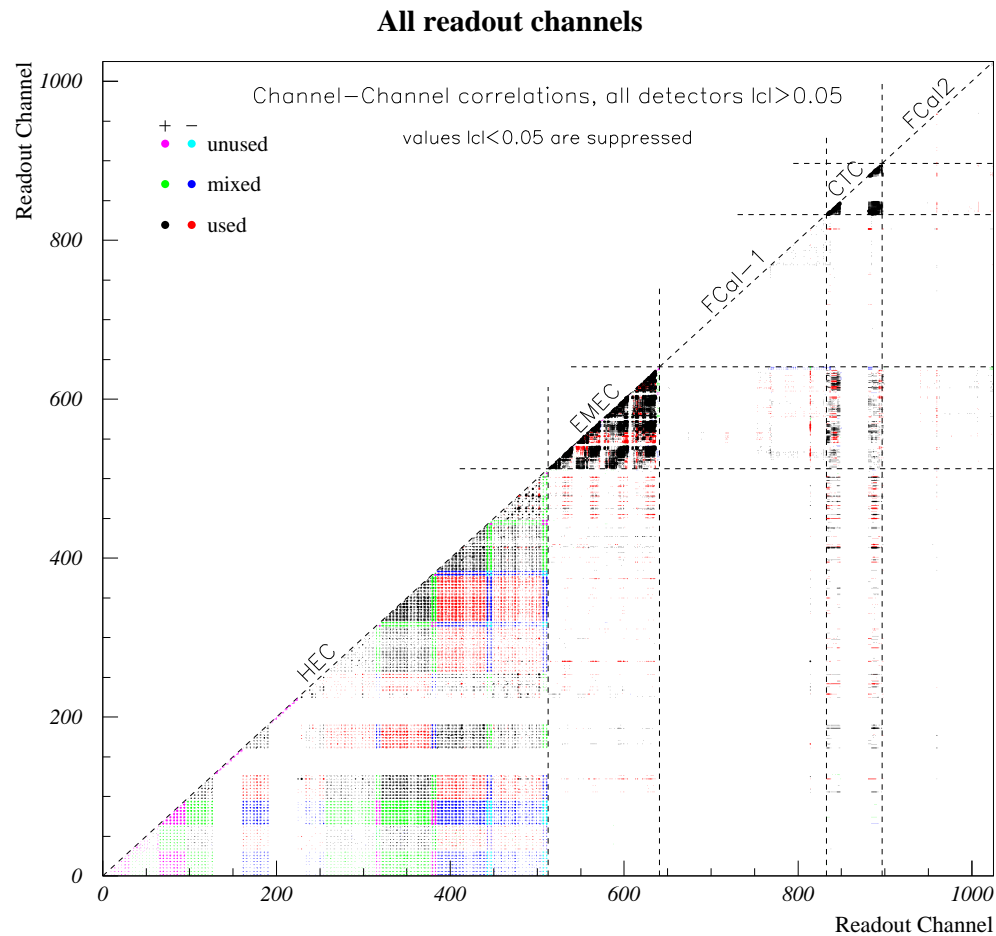Teresa Barillari, MPI Munich   MPI Meeting   CERN, 26 Nov. 2004

- ► HEC correlations plots
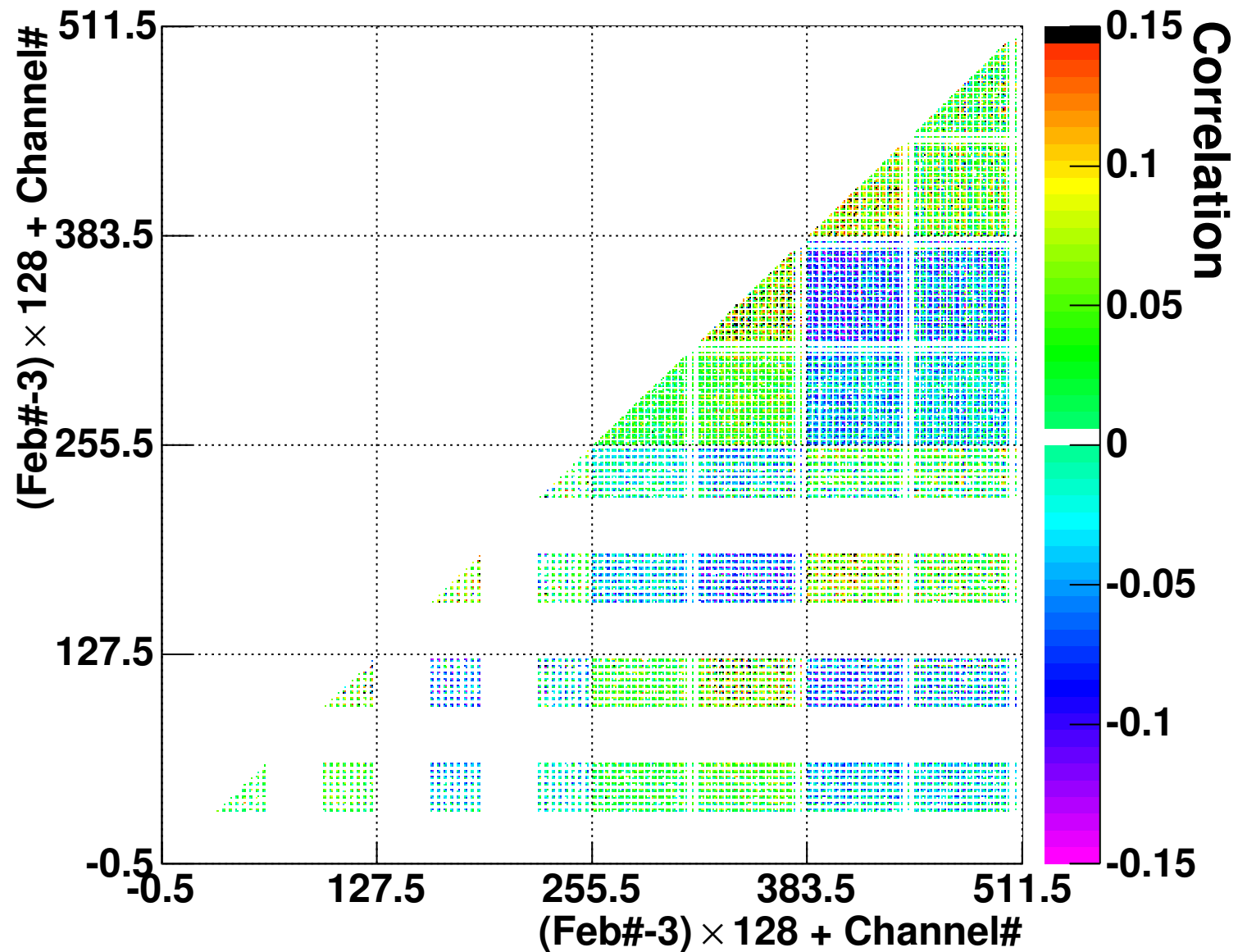- ► Corrections

► On the HEC oscillation noise a lot of work has been already done Alexandre Savine
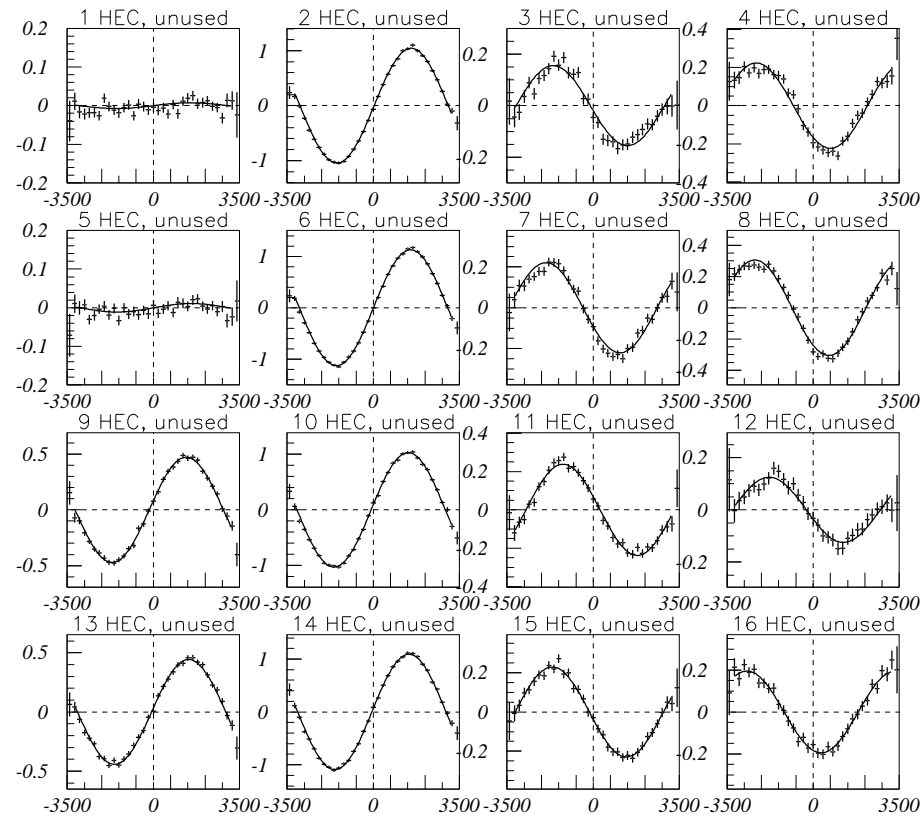

All readout channels

FEBs Correlation

Correlation within FEBs for run #829

► From a Sasha's e-mail :

- Oscillations with this frequency (165 *kHz*) show up in all calorimeters, though with smaller amplitudes

HEC oscillation phases ... (from 32 samples data)

Corrections

► Parameters can be found by minimizing:

$$\chi^2 = \sum_i^{\text{Events}} \sum_j^{\text{Channels}} \sum_k^{\text{Samples}} \frac{\left(s^{ij}_{k-\text{meas}} - p_j - r_j \, A \sin\left(\omega \, t_k + \varphi_i + \varphi_k\right)\right)^2}{\sigma_j^2}$$

► Maybe use some of the information already obtain by Sasha or also work in parallel to him

► Try to correct for this noise

► Put the correction into Athena