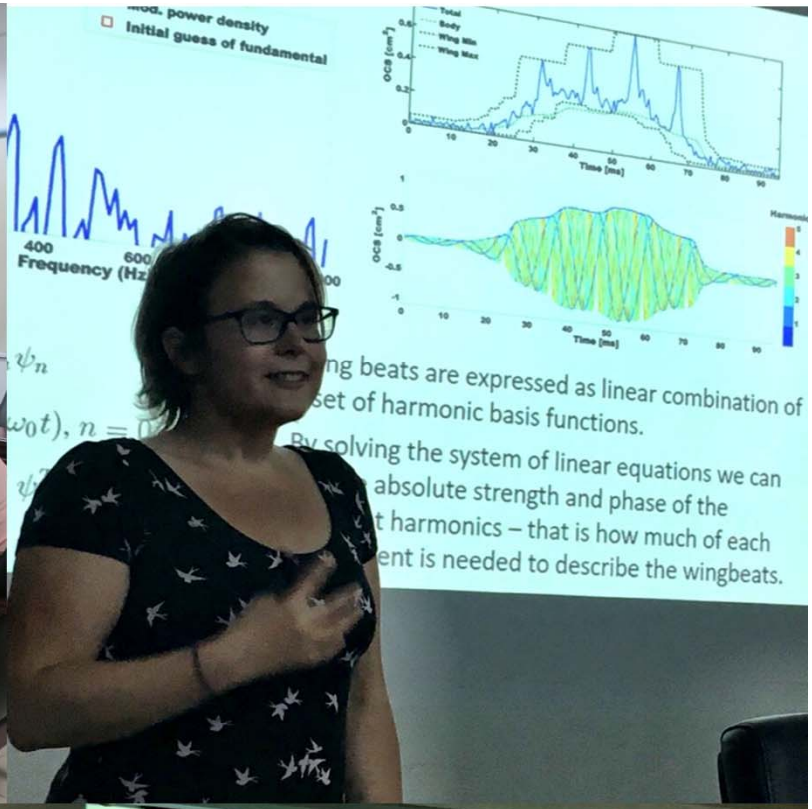
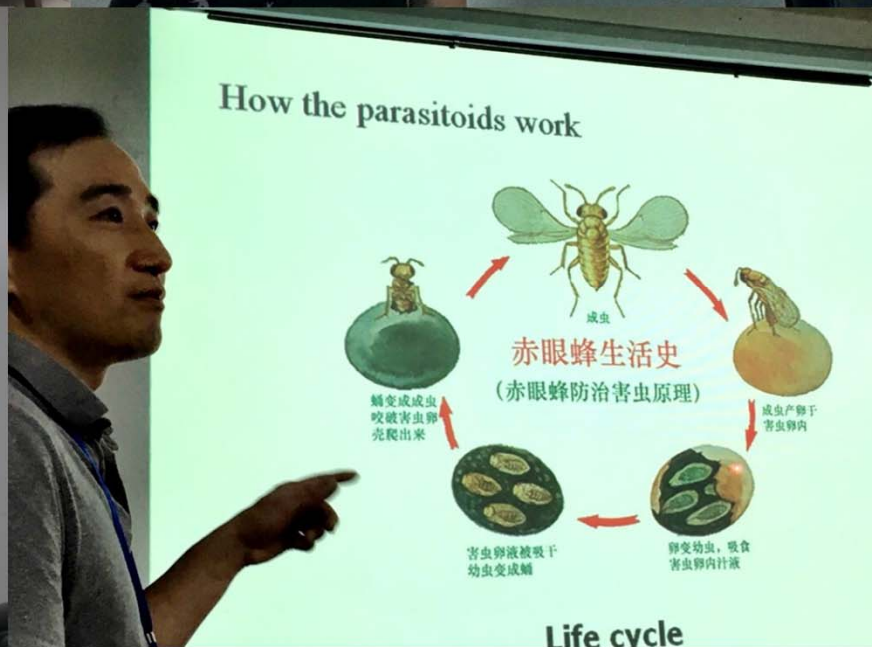
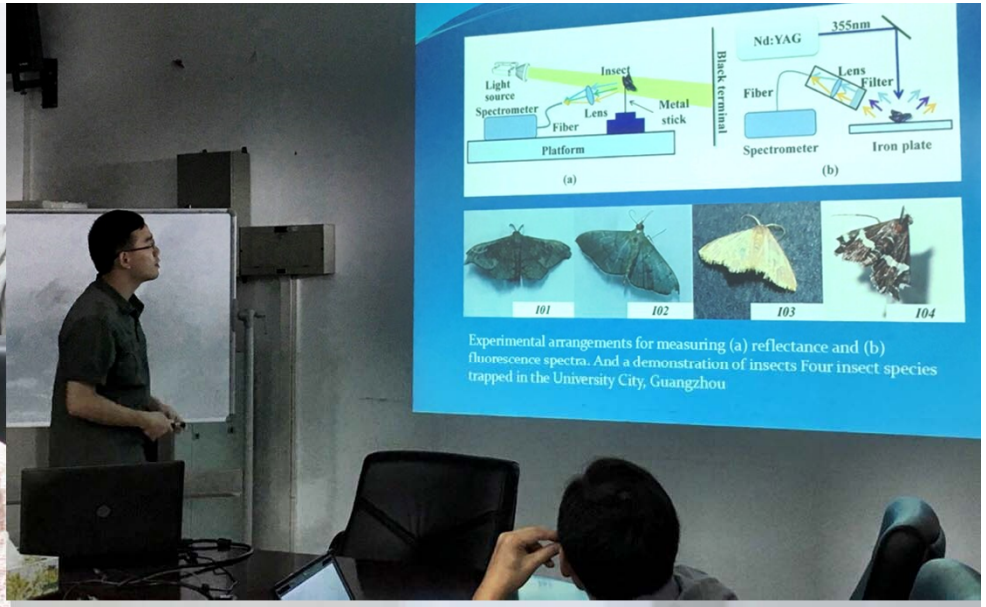
Guangzhou Workshop on Optical Monitoring of Agricultural Insects Pictural Progress Report

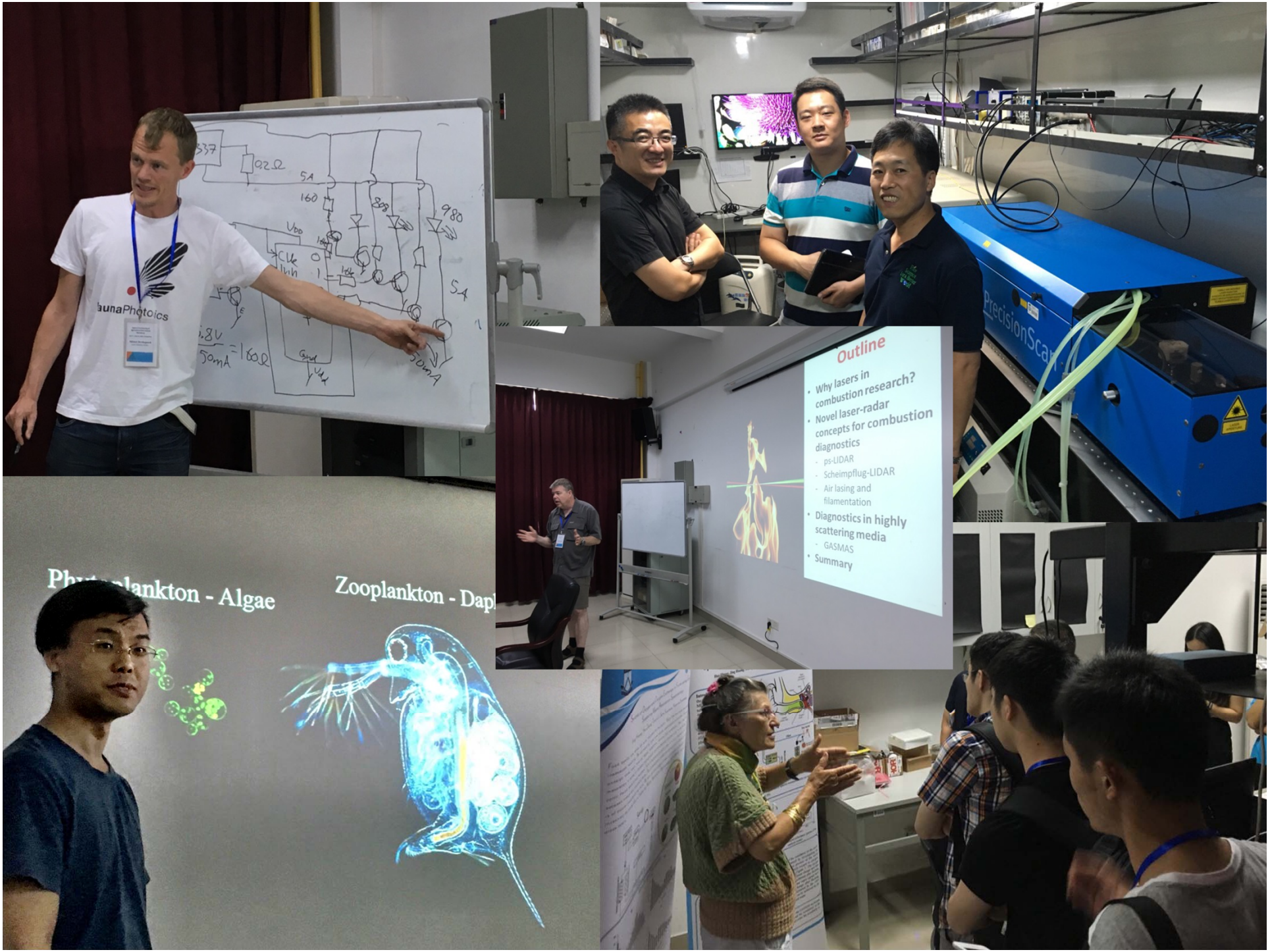

Initial guess of fundamental
Frequency (Hz)
Time [ms]
ng beats are expressed as linear combination of
set of harmonic basis functions.
By solving the system of linear equations we can
absolute strength and phase of the
harmonics – that is how much of each
ent is needed to describe the wingbeats.

Insect visual inspector
Smartphone or smartphone controlled camera
Move forward and backward
Instant count number of pest insects

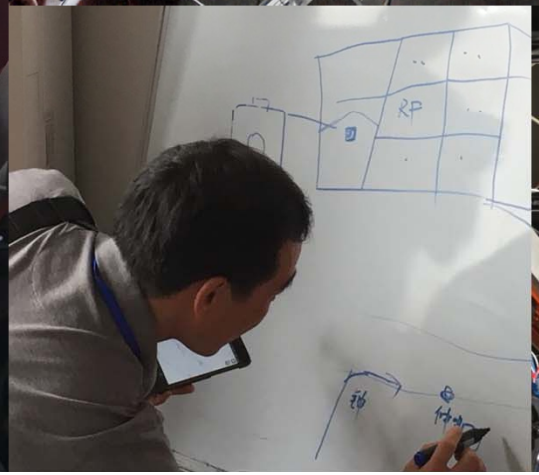

How the parasitoids work
赤眼蜂生活史
（赤眼蜂防治害虫原理）
成虫
Life cycle

Jack
Wolfskin


Light source
Spectrometer
Fiber
Insect
Lens
Metal stick
Platform
(a)
Black terminal
Nd:YAG
355nm
Lens
Filter
Fiber
Spectrometer
Iron plate
(b)
101
102
103
104
Experimental arrangements for measuring (a) reflectance and (b) fluorescence spectra. And a demonstration of insects Four insect species trapped in the University City, Guangzhou


Outline
Why lasers in combustion research?
Novel laser-radar concepts for combustion diagnostics
ps-LIDAR
Scheimpflug-LIDAR
Air lasing and filamentation
Diagnostics in highly scattering media
GASMAS
Summary
Zooplankton - Dap

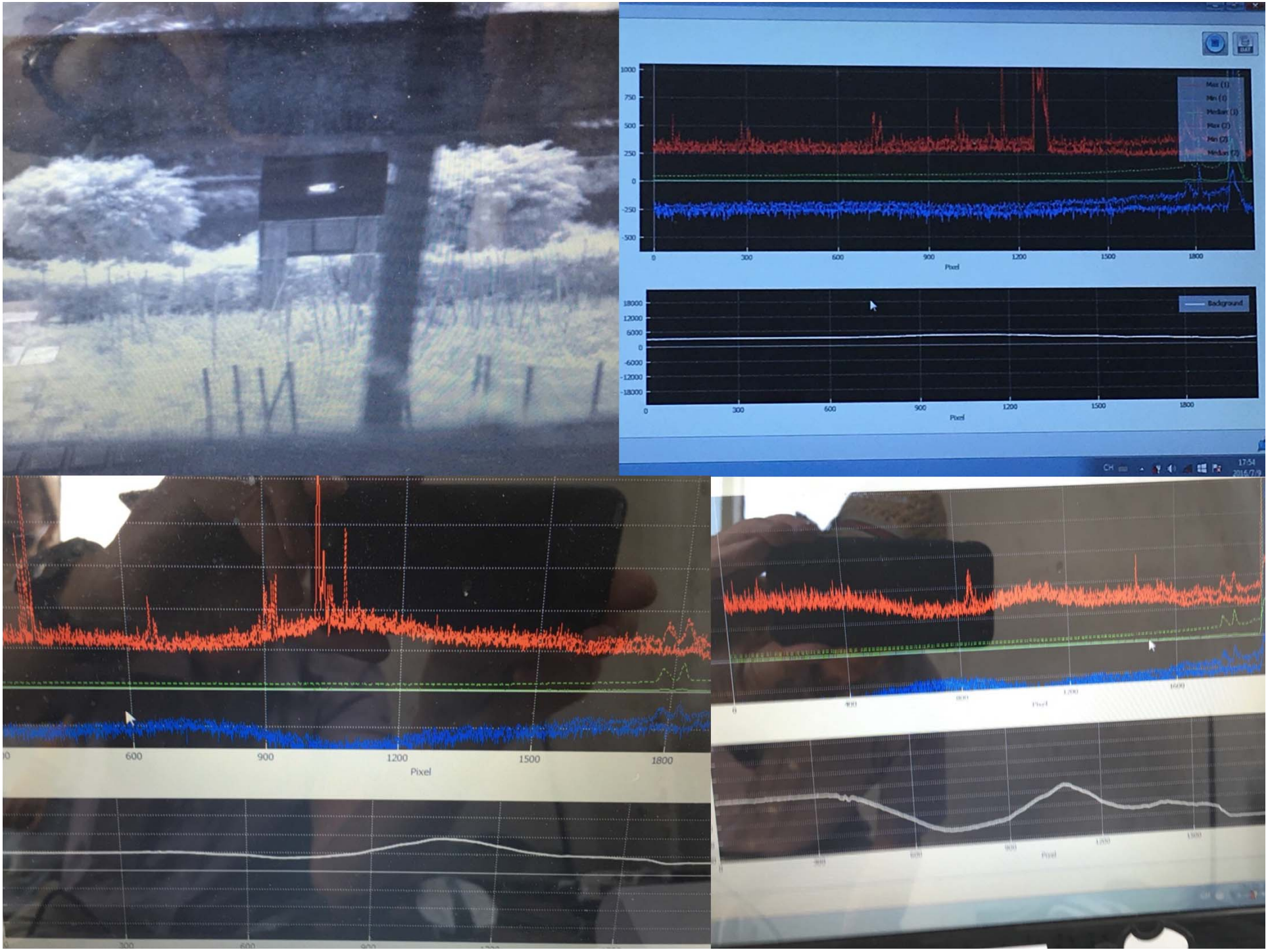
Sky-Watcher


RP

Welcome to the workshop on optical remote sensing of insects 2016
This is a project within the framework of the agreement of a Joint Research Center on Optical Spectroscopy applied to Agricultural Sciences, established between:
South China Normal University
Lund University
Henan Agricultural University
Strongly supported by:
Henan Academy of Agricultural Sciences
Guangdong Academy of Agricultural Sciences
Zhejiang University
The program for the event is as follow:
4th July, 2016
9:00, VIP Room
Opening ceremony of the workshop
Joint photo
Morning, Room 606
Opening Remarks, by vice-president Zhu Hong
Laser safety training, by Sune Svanberg
Afternoon, Room 339
Electronic technique training, by Mikkel Brydegaard
5th-8th July
Room 606
Software training, data analysis, lidar principle, by Mikkel Brydegaard
Room 533
Lidar system testing
9th-10th July
Set up of system at experimental farm in the vicinity of Guangzhou
11th-16th July
Insect monitoring campaign at experimental farm
Contact:
Wendy Huang: 15920154683

理5栋2楼报告厅
The Lecture Hall of ACE
Welcome to the workshop on optical remote sensing of insects 2016

DRIVER/MULTIPLEXER


1000
750
500
250
0
-250
-500
0
300
600
900
1200
1500
1800
Pixel
Background
18000
12000
6000
0
-6000
-12000
-18000
Pixel
600
900
1200
1500
1800
Pixel