



SOXS Science Consortium Meeting

WG13

1. Group members, duties and activities
2. Survey results
3. Actions from the survey and suggestions for the discussion

M.T. Botticella & S. Benetti on behalf of WG13



SOXS Science Consortium Meeting

WG13

GROUP MEMBERS, DUTIES AND ACTIVITIES

M.T. Botticella & S. Benetti on behalf of WG13

WG13 MEMBERS

Leader: Stefano Benetti

stefano.benetti@inaf.it

Deputy: Maria Teresa Botticella

maria.botticella@inaf.it

about 30 members from different countries

E. Cappellaro, N. Elias-Rosa, A. Pastorello, L. Tartaglia, L. Tomasella, A. Reguitti, I. Salmaso, G. Valerin

A. Harutyunyan, L. Izzo, M. Della Valle

S. Campana, M. Landoni, L. Asquini

S. Piranomonte, E. Mason

I. Arcavi

G. Pignata, F. Bauer, J. Anderson

S. Smartt, M. Nicholl

S. Mattila, R. Kotak, T. Kangas, H. Kuncarayakti, S. Tsygankov, V. Neustroev, P. Charalampopoulos, T. Nagao

Anyone wishing to join, please contact Stefano

WG13 TASKS

Coordinating of WG activities related to the process of target classification

Training and supporting on duty teams during operations

Monitoring and supervising the classification results

Improving the efficiency of the process of target classification

Select / highlight unknowns or new classes of transients

WG13 TASKS

To enhance transient science with classification process

Increasing the efficiency of selection of classification targets

- broker filtering
- selection criteria for classification targets

Improving the accuracy of photometric and spectroscopic classification

- templates for the spectroscopic classification tools
- training set for Machine Learning based classifiers
- analysis of transitional transients

WG13 ACTIVITIES

- ❑ during the preparatory phase
- ❑ during operations
- ❑ as SOXS proceeds

Classification is the biggest challenge for SOXS programme



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graph LR; A[Target selection] --> B[Target observations and classification]; B --> C[Classification data release];
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Target selection

Target observations and
classification

Classification data release

Preparatory phase

Target selection

Target observations and
classification

Classification data release

WGs

Scheduler and Pipeline team
classification tool developers

SB and WGs

WG13 activities

collect selection criteria
plan a strategy for classification
test of target injection
in Marshall and scheduler

coordinate the efforts

- to implement classification tools
- to collect templates from WGs
- for training of on duty teams

guidelines
draft of report for SOXS Consortium
templates for TNS, GCN ...

Preparatory phase

What we did so far

A survey to collect info from WGs on the target selection and priority criteria

A project to implement classification tools

A meeting on scheduler with Laura and Sergio

Preparatory phase

What we are going to do

In the next months

- A meeting with Marshall developers
- Simulations of the injection of classification targets in the SOXS Marshall and scheduler

During the commissioning phase

- A workshop dedicated to SOXS data reduction with hands-on sessions for training
 - to run pipeline
 - to properly extract 1D spectrum
 - to use classification tools
- Dry run for on duty teams

Operations

Target selection

Target observations and
classification

Classification data release

WGs

On duty team

On duty team

WG13 activities

support of on duty teams

supervision of classifications

database with classification statistics

AS SOXS proceeds

WG 13 activities

Database analysis

Check final classifications
Cross-check with early-classifications
for transients with uncertain classification
or transitional type transients
Statistical analysis for legacy projects

New template sample

Collect NIR template
and very early phase template
templates for new transient classes

Training set sample

Selection of a sample with both
well sampled light curves and
spectroscopic classification

Questions?