Report 4.2 RESIK SPIRIT SPHINX TESIS
FIAN– SRC Solar Phys. Division Wroclaw
November 2013 – May 2015

4.2. Проект «XUV спектроскопия Солнца» - Совместный анализ и интерпретация эмиссионных спектров солнечной короны в мягком рентгеновском и вакуумно-ультрафиолетовых диапазонах спектра по данным экспериментов:

- «РЕСИК» и «СПИРИТ» на борту спутника «КОРОНАС-Ф»;
- «SphinX» и «ТЕСИС» на спутнике «КОРОНАС-ФОТОН».

Организации - исполнители: от РАН - ФИАН, от ПАН - ЦКИ.

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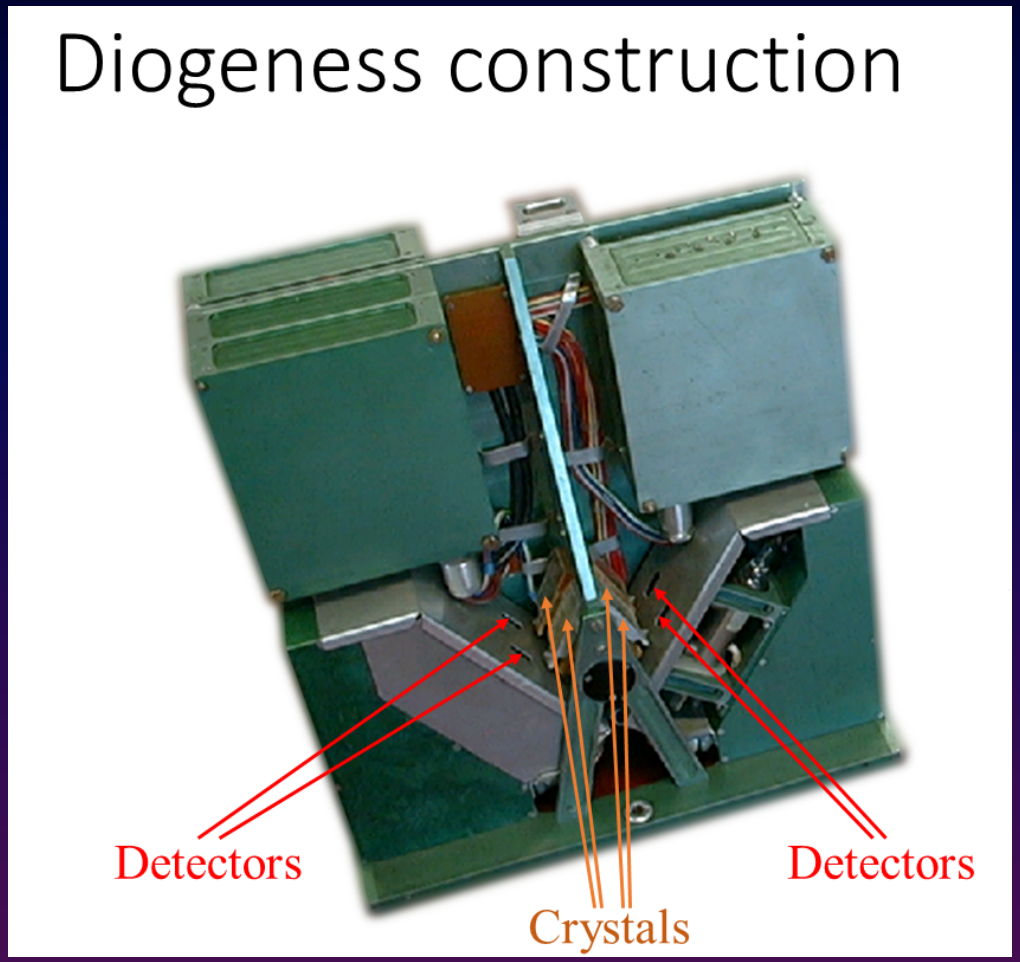
Polish-Russian IAWG
Moscow

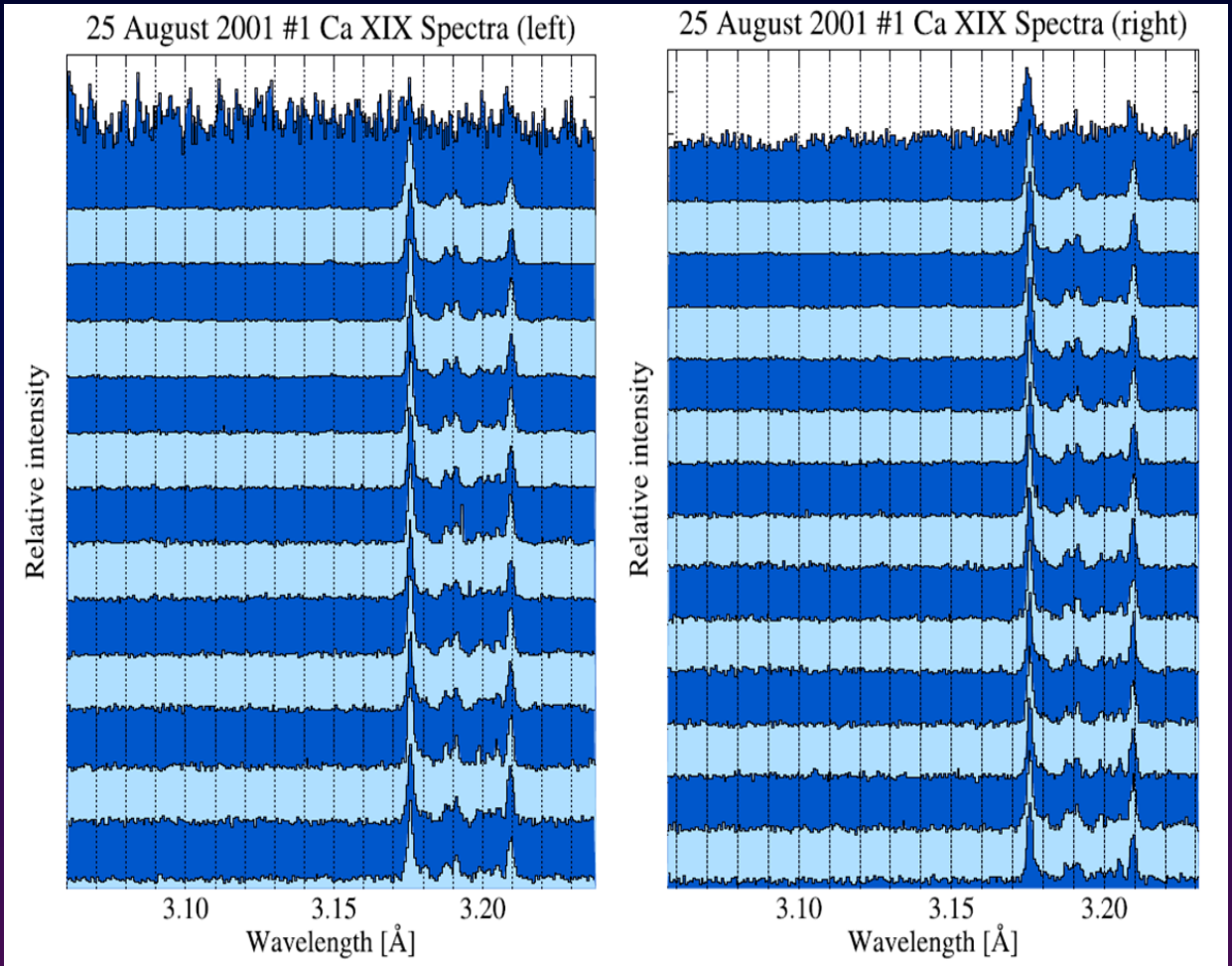
26 - 27 May 2015,

Diogeness on CORONAS-F



- 4 flat crystals
- 4 fixed proportional Detectors
- Rocking arm

Database of Diogeness scanning spectrometer measurements created

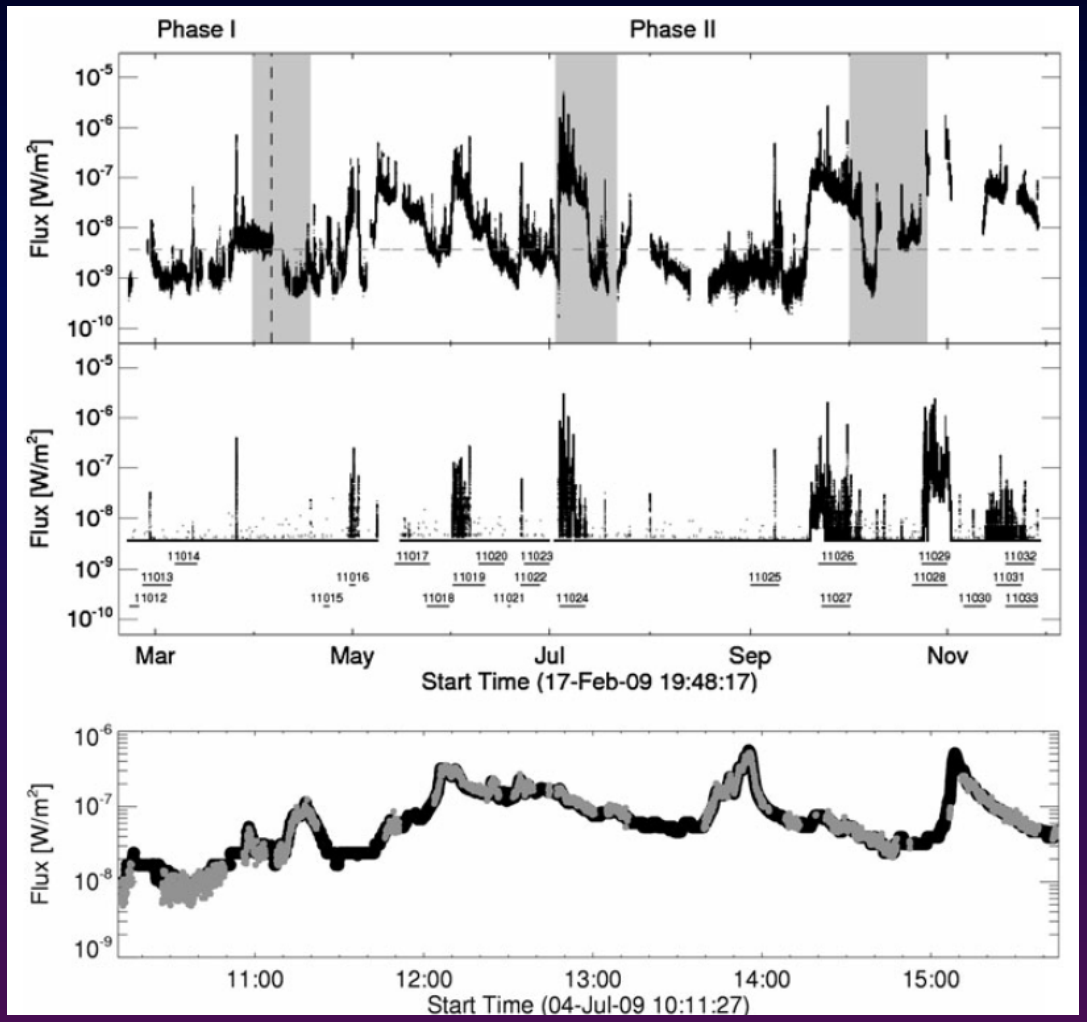


- ~150 spectral scans for 8 flares in August & Sept. 2001

(600 spectra)

Under analysis

SPHINX inside Thesis on Coronas-Photon



Solar Phys (2013) 283:631–649
DOI 10.1007/s11207-012-0201-8

SphinX: The *Solar Photometer in X-Rays*

Szymon Gburek · Janusz Sylwester · Miroslaw Kowalinski · Jaroslaw Bakala · Zbigniew Kordylewski · Piotr Podgorski · Stefan Plocieniak · Marek Siarkowski · Barbara Sylwester · Witold Trzebinski · Sergey V. Kuzin · Andrey A. Pertsov · Yurij D. Kotov · Frantisek Farnik · Fabio Reale · Kenneth J.H. Phillips

Sphi minimum

ed

THE ASTROPHYSICAL JOURNAL, 751:111 (5pp), 2012 June 1

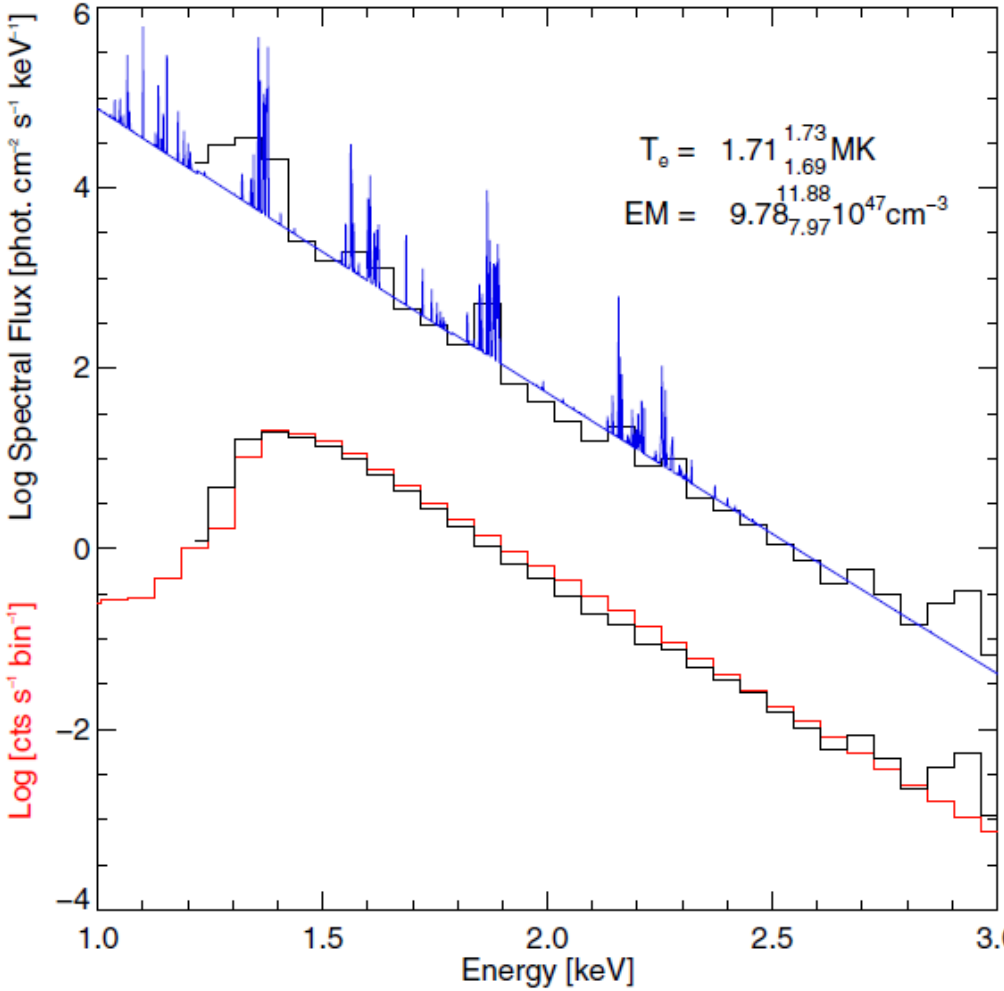


Figure 2. Averaged photon spectrum in the 1–3 keV range (upper histogram) over a time period on 2009 September 16 between 01:50 UT and 07:33 UT, made up of intervals when the total SphinX D1 count rate was below 110 counts s^{-1}. The energy bins correspond to those in the count rate spectrum (lower histograms). The blue curve is the CHIANTI photon spectrum at a few eV

Figure 3. Left: *Hinode* XR
(Table 1). The general coro
filter taken on September 1

ed by SphinX
e in its 171 Å

doi:10.1088/0004-637X/751/2/111

SphinX MEASUREMENTS OF THE 2009 SOLAR MINIMUM X-RAY EMISSION

J. SYLWESTER[1], M. KOWALINSKI[1], S. GBUREK[1], M. SIARKOWSKI[1], S. KUZIN[2], F. FARNIK[3], F. REALE[4], K. J. H. PHILLIPS[5], J. BAKAŁA[1], M. GRYCIUK[1], P. PODGORSKI[1], AND B. SYLWESTER[1]

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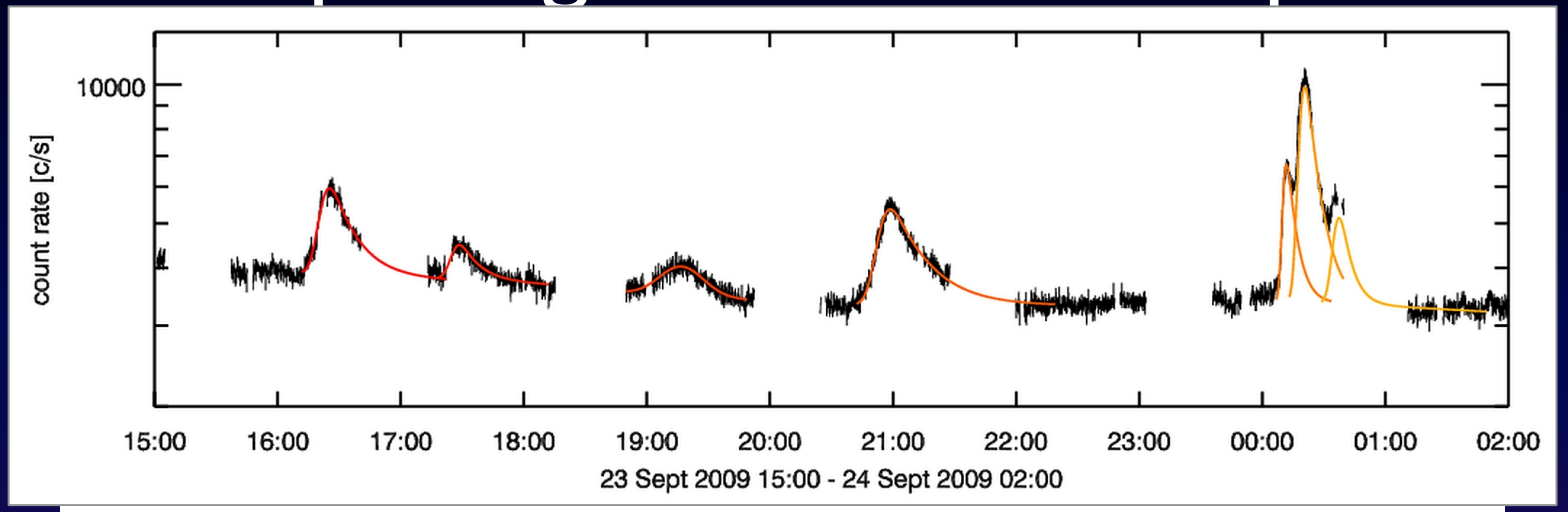
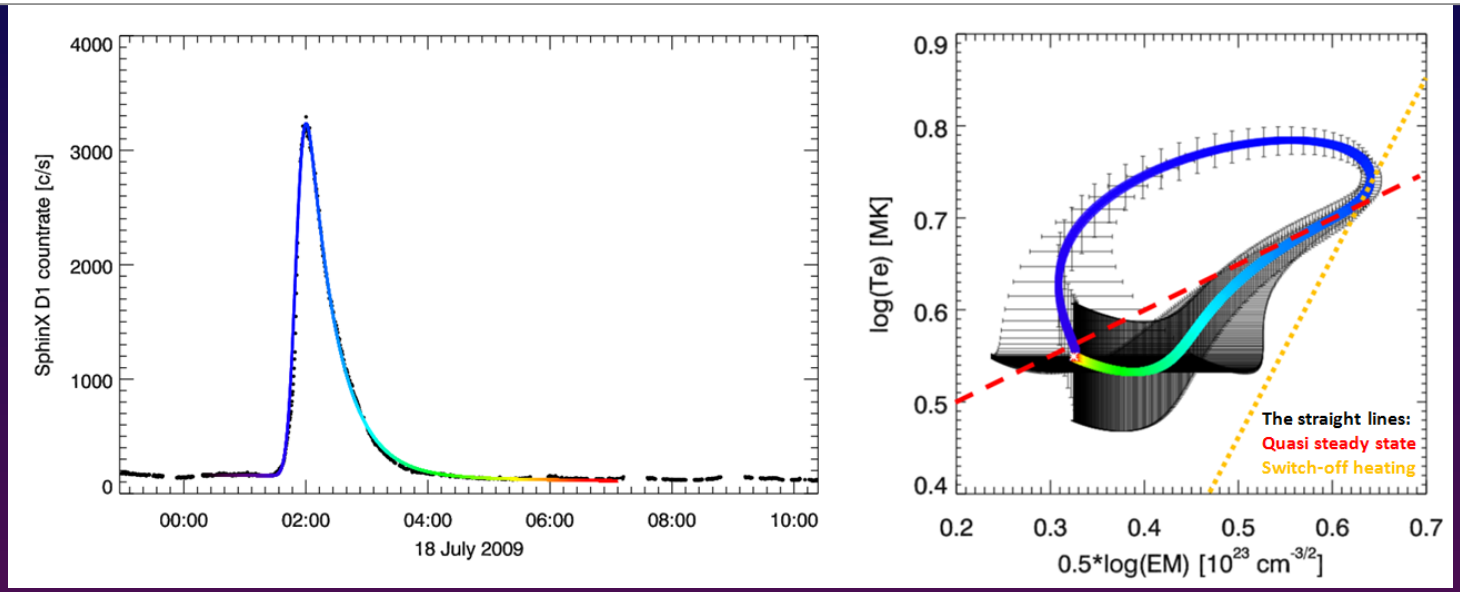
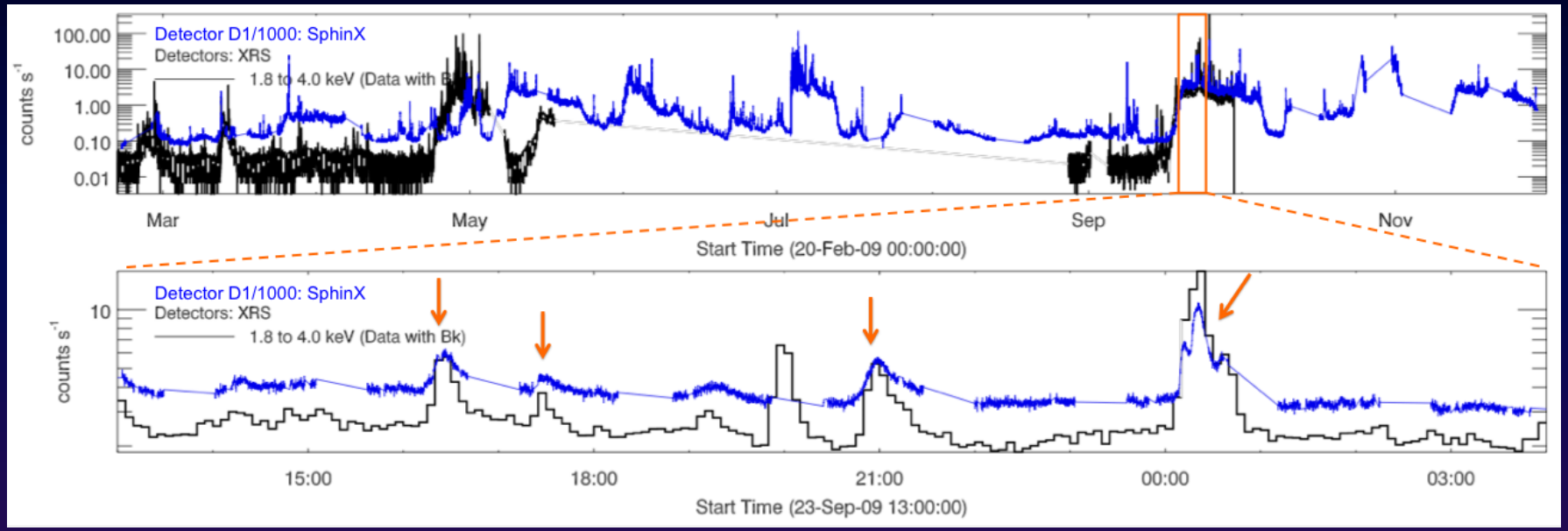
SphinX and TESIS decomposing flares into components





SphinX and XRS on MESSENGER



- Comparison in progress

Polish-Russian IAWG

Papers published

The Coronas-F Space Mission
Astrophysics and Space Science Library Volume 400, 2014, pp 149-156

Date: 18 Nov 2013

Observations of Doppler Shifts of X-Ray Lines in Solar Flare Spectra Based on DIOGENESS Spectrometer Data

Z. Kordylewski, J. Sylwester, B. Sylwester, M. Siarkowski, S. Płocieniak, A. Kępa, M. Kowaliński, W. Trzebiński, F. Farnik

Chapter Metrics

Downloads

Solar Phys
DOI 10.1007/s11207-014-0644-1

SOLAR AND STELLAR FLARES

X-ray Flare Spectra from the DIOGENESS Spectrometer and Its Concept Applied to ChemiX on the Interhelioprobe Spacecraft

Janusz Sylwester[1] · Zbigniew Kordylewski[1] · Stefan Płocieniak[1] · Marek Siarkowski[1] · Mirosław Kowaliński[1] · Stanisław Nowak[1] · Witold Trzebiński[1] · Marek Stęślicki[1] · Barbara Sylwester[1] · Eugeniusz Stańczyk[1] · Ryszard Zawerbny[1] · Żaneta Szaforz[1] · Kenneth J.H. Phillips[2] · František Fárník[3] · Anatolyi Stepanov[4]

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Conclusions: analysis is in progress
many new papers in preparation !!

Thanks for your help