

# X-ray Spectral Fitting 2022



**Astronomical  
Institute**  
of the Czech Academy  
of Sciences

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*Note all times are in Central European Time and the hands-on exercises are available at:  
[peterboorman.com/tutorial\\_bxa](http://peterboorman.com/tutorial_bxa)*

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***Monday 7th February 2022***

***– Day 1, X-ray spectral fitting introduction –***  
*(Talk chair: Dr. Daniel Kynoch)*

**9:00 – 9:30** – ***Coffee break***

**9:30 – 9:45** – ***Welcome***  
– Presenter: **Peter Boorman**

**9:45 – 11:00** – Hands-on: ***Introduction to Xspec/PyXspec***

**11:00 – 12:00** – Hands-on: ***Introduction to Sherpa***

**12:00 – 14:00** – ***Lunch***

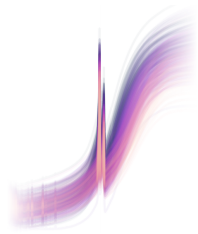
**14:00 – 15:00** – Plenary lecture: ***The Past, Present & Future of X-ray Spectral Analysis***  
– Presenter: **Dr. Keith Arnaud**

**15:00 – 15:30** – ***Coffee break***

**15:30 – 16:00** – ***Winter school photo***

**16:00 – 17:00** – Plenary lecture: ***The Importance & Power of X-ray Spectral Fitting***  
– Presenter: **Prof. Richard Mushotzky**

***– End of day 1 –***



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*Tuesday 8th February 2022*

*– Day 2, BXA introduction –  
(Talk chair: Dr. Jiří Svoboda)*

9:00 – 9:30    – *Coffee break*

9:30 – 11:00    – Hands on: *Xspec & Sherpa exercises*

11:00 – 12:00    – Plenary lecture: *Introductory talk for Bayesian X-ray Analysis*  
– Presenter: **Dr. Johannes Buchner**

12:00 – 14:00    – *Lunch*

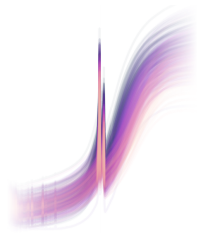
14:00 – 14:30    – Invited talk: *X-ray spectral analysis in eROSITA Final  
Equatorial Depth Survey (eFEDS): an example of using BXA*  
– Presenter: **Dr. Teng Liu**

14:30 – 15:00    – Invited talk: *XMMFITSAT-Z: Using photo-z information within  
BXA*  
– Presenter: **Dr. Angel Ruiz**

15:00 – 15:30    – *Coffee break*

15:30 – 17:00    – Hands-on: *BXA exercises, session 1: spectral fitting & model  
comparison*

*– End of day 2 –*



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*Wednesday 9th February 2022*

*– Day 3, BXA introduction –  
(Talk chair: Anastasia Yilmaz)*

9:00 – 9:30    – *Coffee break*

9:30 – 12:00    – Hands-on: *BXA exercises, session 1: spectral fitting & model comparison*

12:00 – 14:00    – *Lunch*

14:00 – 14:30    – Invited talk: *A BXA-driven study of reliability of X-ray Spectral fits in determining AGN torus morphology*  
– Presenter: Tathagata Saha

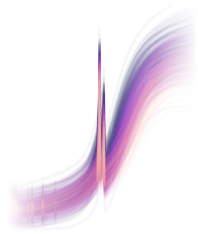
14:30 – 15:00    – Invited talk: *Using BXA to derive redshifts*  
– Presenter: Charlotte Simmonds

15:00 – 15:30    – *Coffee break*

15:30 – 17:00    – Hands-on: *BXA exercises, session 1: spectral fitting & model comparison*

19:00 – 22:00    – *Virtual social evening*

*– End of day 3 –*



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*Thursday 10th February 2022*

*– Day 4, BXA more advanced concepts –  
(Talk chair: Dr. Daniel Kynoch)*

9:00 – 9:30    – *Coffee break*

9:30 – 10:30    – Lecture: *More computationally-expensive analyses with BXA*  
                    – Presenter: **Peter Boorman**

10:30 – 12:00    – Hands-on: *BXA exercises, session 2: more advanced concepts*

12:00 – 14:00    – *Lunch*

14:00 – 14:30    – Invited talk: *Complex modelling with many datasets within BXA*  
                    – Presenter: **Devang Liya**

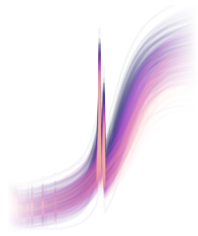
14:30 – 15:00    – Invited talk: *Exploring the obscuration properties of AGN in the  
Chandra Deep Wide Field Survey with BXA*  
                    – Presenter: **Dr. Alberto Masini**

15:00 – 15:30    – *Coffee break*

15:30 – 17:00    – Hands-on: *BXA exercises, session 2: more advanced concepts*

19:00 – 22:00    – *Winter school meal*

*– End of day 4 –*



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*Friday 11th February 2022*

*– Day 5, BXA more advanced concepts –  
(Talk chair: Dr. Peter Boorman)*

9:00 – 9:30    – *Coffee break*

9:30 – 12:00    – Hands-on: *BXA exercises, session 2: more advanced concepts*

12:00 – 14:00    – *Lunch*

14:00 – 14:30    – Invited talk: *Bayesian spectral analysis for large XMM surveys*  
                      – Presenter: **Lingsong Ge**

14:30 – 15:00    – Invited talk: *The synergy between Monte Carlo Radiative  
                      Transfer and Artificial Neural Networks*  
                      – Presenter: **Dr. Gabriele Matzeu**

15:00 – 15:30    – *Coffee break*

15:30 – 16:30    – Hands-on: *BXA exercises, session 2: more advanced concepts*

16:30 – 17:00    – *Questions & closing remarks*

*– End of winter school –*