



X-ray Spectral Fitting

Prague | February 2022



Astronomical
Institute
of the Czech Academy
of Sciences

*Note all times are in Central European Time and the hands-on exercises are available at:
peterboorman.com/tutorial_bxa*

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 –



X-ray Spectral Fitting

Prague | February 2022



Astronomical
Institute
of the Czech Academy
of Sciences

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 –



X-ray Spectral Fitting

Prague | February 2022



Astronomical
Institute
of the Czech Academy
of Sciences

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 –



X-ray Spectral Fitting

Prague | February 2022



Astronomical
Institute
of the Czech Academy
of Sciences

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 –



X-ray Spectral Fitting

Prague | February 2022



Astronomical
Institute
of the Czech Academy
of Sciences

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 –