

X-ray Spectral Fitting 2022



**Astronomical
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of Sciences

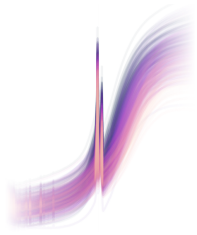
*Note all times are in Central European Time and the hands-on exercises are available at:
peterboorman.com/tutorial_bxa*

Monday 7th February 2022

– Day 1, X-ray spectral fitting introduction –

- 9:00 – 9:30 – *Coffee, help & questions* (optional)
- 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*
- 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 & hands-on exercises session 1 –

9:00 – 9:30 – *Coffee, help & questions* (optional)

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*

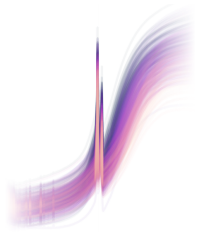
14:00 – 14:30 – Invited talk: *TBD*
– Presenter: **Dr. Teng Liu**

14:30 – 15:00 – Invited talk: *XMMFITCAT-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 hands-on session 1 –

- 9:00 – 9:30 – *Coffee, help & questions* (optional)

- 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

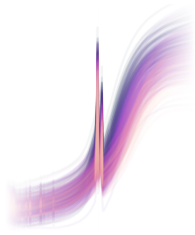
- 14:30 – 15:00 – Invited talk: *Using BXA to derive redshifts*
 – Presenter: Charlotte Simmonds

- 15:00 – 15:30 – *Coffee break*

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

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

– End of day 3 –



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Thursday 10th February 2022

– Day 4, BXA more advanced concepts –

9:00 – 9:30 – *Coffee, help & questions* (optional)

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*

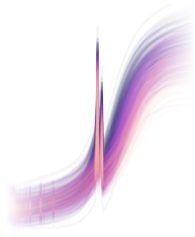
14:00 – 14:30 – Invited talk: *Complex modelling with many datasets within BXA*
– Presenter: **Devang Liya**

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*

– End of day 4 –



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Friday 11th February 2022

– Day 5, questions & continued more advanced concepts –

9:00 – 9:30 *– Coffee, help & questions (optional)*

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 day 5 –