# The 2021 outburst of RS Oph observed in X-rays by Swift: a comparative study 

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Complete Swift-XRT dataset from 2006-2022


Optical \& Gamma-ray light-curves


Data from ANS Collaboration.
Credit: Ulisse Munari
Data from Swift-BAT Transient Monitor




Swift-XRT spectra: 2006


Swift-XRT spectra: 2021


X-rays spectral fitting results

[ Fe X$]$ - indicator of photoionization?


- The 2006 and 2021 eruptions were 15.5 yr apart - the average recurrence time. 2006 occurred after a longer 21 yr gap.
- The difference in soft X-ray counts measured ( $4-5 \mathrm{x}$ greater in 2006 ) is much larger than the difference in quiescent intervals.
- While absorption might seem like a good explanation for decreased soft counts, fitting neutral $N_{H}$ does not support this. More complex absorption?
- The BB effective emitting radius in 2021 ( $\sim 2$ months after eruption) is significantly smaller. Could be a sign of the expected shrinking of the bloated WD atmosphere as nuclear burning switches off - though the [Fe X] data suggest this interval was about the same both years.

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\text { Page et al., 2022, MNRAS, 514, } 1557 \text { (arXiv:2205.03232) }
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