

	QSO	XRB	TDE	References
$M_{\text{BH}}$	$10^{6-9}$	$10^{0-1.8}$	$< 10^{6-7} (??)$	
$\dot{M}$	$\sim 1 M_{\odot}/\text{yr}$	$\sim 1 M_{\odot}$	$1 - 10 M_{\odot}/\text{yr}$	
$\ddot{M}$ ( $\Rightarrow$ LC shape?)	?	?	?	
$a$ (BH spin)	low, mode, high	generally high		
$\log L/L_{\text{Edd}}$	-2 - 0	0.01-1		
preferential $L_{\text{Edd}}$ ??	<i>maybe</i> for CLQs			
ang. momen (accn disk)				
$\frac{d}{dt}$ ang. momen	?	?	?	
fuel source	accn disk	accn disk	star	
opacity				
accn disk wind??				
host galaxy	$\sim$ whole population*	—	post-starburst preference	
	*though not local AGN	—		
evolution with $z$	peaks at $z \sim 2-3$	Yes	?	
binary BHs?	✓		$\times$ (probably)	
BLR?	✓	No	✓ (but weird?)	
CL-BLR?	✓	No (but...)		
BLR in polarimatory?	Yes	n/a	?	
He II ?	rare		✓	
Coronal Lines	Sometimes	?	Sometimes	
Fe opacity important?	✓	?	?	

Table 1: [github.com/d80b2t](https://github.com/d80b2t)

	QSO	XRB	TDE
PSD in opt.	changes with $\dot{M}$		
PSD in X-ray	no evolution		
PSD in IR	?		n/a?
X-rays	yes	By definition	No (except when there are)
Hard state?		Yes	
X-ray variability? (soft)	Yes	Yes	
X-ray variability? (hard)			
corona?	Yes	$\sqrt{}/\times$ (Big debate)	?
Radio variability	$\sqrt{}$		
Infrared variability	$\sqrt{}$		$\sqrt{}$ (probably)
Is $x$ important?			
Viscous timescale	Incredibly		
X-ray Reprocessing	Yes		
IR Reprocessing	Yes		
Atomic Physics			
Challenges SS73?	AGN disk (x4) too big		

From Nadia Blagorodnova::

Using the last  $M - \sigma$  relations for TDE hosts, they have a figure showing that preferentially they are close to  $L_{\text{Edd}}$ , but the range is 0.01-1 of  $L_{\text{Edd}}$ : <http://adsabs.harvard.edu/abs/2017arXiv170608965W>

From Ohad Shemmer::

Going back to my (and others) "NLS1 philosophy", in a nutshell: NLS1s have been identified back in 1986 as a "strange new class" of broad-line Seyferts. Many things happened since then, and 1999 should have pretty much marked the end of the "NLS1" terminology. Unfortunately, many folks are still having a hard time disengaging from this exotic "NLS1 class".

These sources are simply understood as type 1 AGN lying at some extreme corner of parameter space, driven mainly by high  $L/L_{\text{Edd}}$ . So their BELR lines are relatively narrow with respect to their luminosity, indicating high  $L/L_{\text{Edd}}$  and relatively low  $M_{\text{BH}}$ . This also dictates extremely low [O III]/H $\beta$  ratios, strong Fe II lines, weak C IV lines, etc. etc.

So, for the Table, I'd simply remove (safely) the last two lines, i.e., "[O III]/H $\beta$ " and "like NLS1", since these two lines are implicit in the  $\log L/L_{\text{Edd}}$  line above.

Also, I think you can safely change to a "Yes" the XRB evolution with redshift; see, e.g., Lehmer+16, ApJ, 825, 7, and refs. therein.