

Table S3: Probability of detection (PD) and probability of false alarms (PF) for the AEEEM experiment

PSI ↓	Target	Source	PD ↑	PF ↓	KS-test (shift)	PSI	Multi-Source	PD ↑	PF ↓	KS-test(shift)
0.036	JDT	ML	0.750	0.478	Yes	0.759	JDT → <i>all</i>	0.015	0.476	Yes
0.012	JDT	EQ	0.806	0.421	No					
0.031	JDT	PDE	0.775	0.439	Yes					
0.015	JDT	LC	0.748	0.481	Yes					
0.036	ML	JDT	0.818	0.523	Yes	0.062	ML → <i>all</i>	0.839	0.522	Yes
0.026	ML	EQ	0.823	0.503	Yes					
0.024	ML	PDE	0.848	0.422	Yes					
0.030	ML	LC	0.838	0.529	Yes					
0.012	EQ	JDT	0.646	0.304	No	0.030	EQ → <i>all</i>	0.546	0.505	Yes
0.026	EQ	ML	0.546	0.504	Yes					
0.022	EQ	PDE	0.546	0.505	Yes					
0.021	EQ	LC	0.546	0.504	Yes					
0.031	PDE	JDT	0.83	0.512	Yes	0.022	PDE → <i>all</i>	0.842	0.292	Yes
0.024	PDE	ML	0.828	0.521	Yes					
0.019	PDE	EQ	0.832	0.51	Yes					
0.020	PDE	LC	0.861	0.31	Yes					
0.015	LC	JDT	0.891	0.457	No	0.041	LC → <i>all</i>	0.863	0.474	Yes
0.030	LC	ML	0.883	0.444	Yes					
0.021	LC	EQ	0.831	0.479	Yes					
0.019	LC	PDE	0.900	0.413	Yes					