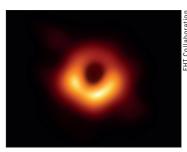
X-sudoku physicsworld.com

Dark digits

In April this year, astronomers working on the Event Horizon Telescope captured the first direct images of a black hole and its "shadow" – the glowing ring of gas and dust trapped in a disc around them. Inspired by this revolutionary discovery, *Physics World* reader **Michael Metcalf** has created a variant of a traditional sudoku so that it begins with a central shadow surrounded by a bright region. Test your mettle over the holidays. We will share the solution next February.



Each number from 1 to 16 must appear once in each row, column and 4×4 box, as well as in each of the two diagonals (X-sudoku).

							12	7							
				4	2		8	12		11	3				
		12	3	15	5	6	11	10	8	14	16	2	4	9	
			13		14		10	4		2	1	6			
		11	1									14	3		
14	8	5	16										13	2	
3	2	6											7	12	9
12	13	9					2					5	11	8	16
13	9	7	4					3					10	16	6
16	15	3											5	13	11
	14	10										8	9	4	1
		8	6									3	15		
			9	2	6		14	16		13		4			
	5	14	7	3	13	1	15	2	12	10	4	9	16		
				12	11		9	15		3	5				
							4	11							

Michael Metcalf retired from CERN a long time ago and now lives in Berlin. His most recent book (with John Reid and Malcolm Cohen) is Modern Fortran Explained (2018 Oxford University Press), e-mail michaelmetcalf@compuserve.com

56 Physics World December 2019