Correction of Southern band intensities shown in Figure 3 for the amount of DNA loaded

(A) Example of an ethidium bromide (EtBr)-stained pulsed-field gel of whole-cell DNA extracts 0-6 hours after initiation of meiosis. EtBr bands represent the minichromosomes of somatic nuclei (~45n) which are present in vast excess and cover the bands from the chromosomes of generative nuclei (2n=10). The latter become visible only by Southern hybridization to a DNA sequence that is specific to generative nuclei (B). Intact chromosomes of generative nuclei are too big to enter the gel, but they do so and can be detected as bands when fragmented by meiotic DSBs. For a detailed explanation see Lukaszewicz et al. (Chromosoma 119: 505-518, 2010).

(C) Details of EtBr bands of the indicated matings. Staining intensity correlates with the DNA amount loaded. A band below saturation was selected (arrowheads) and staining intensities measured using the "Analyze" tool of ImageJ (Wayne Rasband, N.I.H.; http://rsb.info.nih.gov/ij/). Staining intensities of Southern bands (D) representing DSB levels were also measured. The ratios of Southern band intensity / EtBr band intensity were calculated for each lane and expressed in arbitrary units (E). The heights of columns (also shown in Figure 3) represent relative DSB levels corrected for the amounts of DNA loaded.