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Growing synchrony of river flooding in Europe

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River flooding is a common hazard, causing billions of dollars in annual losses. The impacts of floods are shaped by the spatial scale over which different rivers flood simultaneously. We use flood data from several thousand European rivers to demonstrate that the flood synchrony scale – the distance over which multiple rivers flood near-synchronously – far exceeds the size of individual drainage basins, and varies regionally by more than an order of magnitude. We also show that flood synchrony scales have grown by about 50% over the period 1960-2010, and that years with spatially extensive floods tend to follow one another. These findings reveal that flood risks are correlated well beyond the individual drainage basins for which flood hazards are typically assessed and managed.