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Intense storms and associated impacts - Storm Xynthia case

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Intense extratropical cyclones are often associated with extreme weather conditions, in terms of wind and precipitation, being among the most severe natural hazards affecting Europe. In winter 2009 and early spring 2010 the Northern part of Iberia and Southern France were hit by destructive windstorms. In this work we assess the synoptic evolution and the main impacts of storm Xynthia, which caused considerable economical losses on 28th February 2010, mainly in France where 45 people were killed, mostly in the flooding in the Atlantic coast, near La Rochelle. Overall, storm Xynthia was responsible for 59 casualties in Europe - more than storms “Lothar” (1999) and “Kyrill” (2007). The analysis of storm Xynthia is also put into perspective among storminess variability on North Atlantic region. The objective of such exercise is to better understand surges driving factors and to assess associated coastal risk on this region.