Dear Referee #3,

Thank you so much for reviewing our paper.

The manuscript will be, therefore, modified to consider your constructive comments. In the following, a point-by-point response to your comments will be presented.

Point-by-Point response / reviewer # 3

Yasser Hamdi

Specific comments

Comment 1- State of the art.	**Our response**
I agree with the authors that most studies assume that "Tide and extreme SSs are considered as independent" (as stated in the abstract). Yet, this is not so systematic: I would reformulate by highlighting: "Most existing studies are generally based on the assumption that tide and extreme SSs are independent."	Ok. The sentence is now changed. It is now replaced by the following one. Lines 11-12: "Most existing studies are generally based on the assumption that high-tides and extreme SSs are independent."
Some studies (not cited by the authors) have addressed this problem with different approaches. These should be underlined in the introduction and further discussed by the authors. In particular, - Coles, S., & Tawn, J. (2005). Seasonal effects of extreme surges. Stochastic Environmental Research and Risk Assessment, 19(6), 417-427; - Gouldby, B., Méndez, F. J., Guanche, Y., Rueda, A., & Mínguez, R. (2014). A methodology for deriving extreme nearshore sea conditions for structural design and flood risk analysis. Coastal Engineering, 88, 15-26. – see section 3.2; - Pirazzoli, P. A., & Tomasin, A. (2007). Estimation of return periods for extreme sea levels: a simplified empirical correction of the joint probabilities method with examples from the French Atlantic coast and three ports in the southwest of the UK. Ocean Dynamics, 57(2), 91-107; Note that a more recent overview on the interaction with tides is provided by Idier et al. (2019): Idier, D., Bertin, X., Thompson, P., & Pickering, M. D. (2019). Interactions between mean sea level, tide, surge, waves and flooding: mechanisms and contributions to sea level variations at the coast. Surveys in Geophysics, 40(6), 1603-1630.	We agree that adding more references would enrich the state of the art. This paragraph is now added to introductory section: Lines 64-81: "The problem of the surge-tide interactions has been addressed in the literature for many regions and with different approaches (Coles and Tawn, 2005; Gouldby et al., 2014; Pirazzoli, 2007; Idier et al., 2012; Idier et al., 2019). It was shown that tide–surge interactions can be relevant in several regions. The tide–surge interactions at the Bay of Bengal (corresponding to the effect of the tide on atmospheric surge and vice versa) were analyzed by Johns et al., (1985) and Krien et al., (2017). They showed that tide–surge interactions in shallow areas of this large deltaic zone are in the range ±0.6m occurred at a maximum of 1 to 2 hours after low tide. Similar results were obtained by Johns et al. (1985), Antony and Unnikrishnan (2013) and more recently Hussain and Tajima (2017). Focusing on the English channel, Idier et al. (2012) used shallow water model to make surge computations with and without tide for two selected events (November 2007 North Sea and March 2008 Atlantic storms). The authors concluded that the instantaneous tide–surge interaction are significant in the eastern half of the English Channel, reaching values of 74 cm in the Dover Strait, which is about half of maximal storm surges induced by the same events. They also concluded that Skew surges are tide-dependent, with negligible values (less than 5 cm) over a large portion of the English Channel, but reaching several tens of centimeters in some locations such as the Isle of Wight and Dover Strait. More recently, Idier et al. (2019) have investigated the interactions between the sea level components (sea level rise, tides, storm surges, etc.) and the tide effect on atmospheric storm surges is among the main interactions investigated in their review. The authors stated that the studies, and other ones, converge to highlight that tide–surge interactions can produce tens of centimeters of water level at the coast."

	The following references are now added to the references list: • Antony, C. and Unnikrishnan A.S.: Observed characteristics of tide–surge interaction along the east coast of India and the head of Bay of Bengal. Estuar. Coast. Shelf. Sci. 131, 6–11. doi: 10.1016/j.ecss.2013.08.004, 2013. • Coles, S., Tawn, J.: Seasonal effects of extreme surges. Stoch Environ Res Ris Assess, 19, 417–427, doi: 10.1007/s00477-005-0008-3, 2005. • Gouldby, B., Mendez, F., Guanche, Y., Rueda, A. and Mínguez, R.: A methodology for deriving extreme nearshore sea conditions for structural design and flood risk analysis. Coastal Engineering. 88, 15–26. doi: 10.1016/j.coastaleng.2014.01.012, 2014. • Hussain M.A. and Tajima Y.: Numerical investigation of surge–tide interactions in the Bay of Bengal along the Bangladesh coast. Nat Hazards 86(2):669–694. Doi: 10.1007/s11069-016-2711-4, 2017. • Krien Y, Testut L, Islam AKMS, Bertin X, Durand F, Mayet C, Tazkia AR, Becker M, Calmant S, Papa F, Ballu V, Shum CK, Khan ZH Towards improved storm surge models in the northern Bay of Bengal. Cont. Shelf Res. 135, 58–73, doi: 10.1016/j.csr.2017.01.014, 2017. • Pirazzoli, P.A. and Tomasin, A.: Estimation of return periods for extreme sea levels: a simplified empirical correction of the joint probabilities method with examples from the French Atlantic coast and three ports in the southwest of the UK. Ocean Dynamics, 57(2), 91-107, 2007. • Idier D, Dumas F, Muller H Tide–surge interaction in the English channel. Nat Hazard Earth Sys, 12, 3709–3718, doi : 10.5194/nhess -12-3709-2012, 2012. • Idier, D., Bertin, X., Thompson, P. and Pickering, M.D.: Interactions Between Mean Sea Level, Tide, Surge, Waves and Flooding: Mechanisms and Contributions to Sea Level Variations at the Coast. Surv Geophys 40, 1603–1630, doi: 10.1007/s10712-019-09549-5, 2019.
Finally, the beginning of the introduction is mainly focused on the problem of NPPs though the problem of tide-surge dependence is of interest in all applications of the domain of coastal engineering. The authors should maybe either reformulate the introduction to be more general, or reflect the focus on NPPs directly in the title.	The first paragraph of the introduction is now modified to be more general and consider other coastal facilities.
2. Details on the implementation.	
The manuscript would benefit from additional implementation details (and figures) on the different steps of the proposed method. In particular, - Figure on the time-series of Le Havre with examples of MSS (SSS) and High tide sampling; - An empirical bivariate scatterplot High Tide versus MSS (or SSS); - Consider the possibility of statistical methods to estimate tideâˇ AˇRsurge interaction like the analysis by Feng et al. (2015): Figure 6 or the chiâˇ AˇRsquare test described by Haigh et al., (2010); - Stability graphs for the choice of the threshold values; - Error estimates on the GPD parameters	Many figures (time series, scatter plots, stability plots for threshold selection, etc.) are now added. - To the case study section: Figure 4. Studied time-series of Le Havre: (top) predicted and observed sea levels; (middle) SSSs data and (bottom) the MSSs. - To the discussion section**:** Figure 7. Analysis of the dependence between the tide and the SSSs, the MSSs and the ESL events. - To the results section: Figure 5. Stability plots for threshold selection: (top) SSSs, (middle) MSSs and (bottom) ESL.

(line 206); - Further details on the delta method (page 6, line 197).	
Besides, the authors refer to R packages: these references should be preferably located in the method section, together with additional formal details on the corresponding methods.	Ok. Done.
At the end of the discussion (page 7, from lines 340), the authors highlight some interesting alternative methods. These are very relevant and I must admit that after reading them, I wonder why the authors did not consider them in the frist place. Could the authors clarify this aspect?	It is now clarified in a further discussion section.
3. Application.	
The application cases consists of one tide gauge, where the interaction between tide and surge is known to be high. Though the results on this site is useful to highlight	It is a good idea. This is a thesis paper and only Le Havre case study was used in this thesis.

Minor comments:

Comment	**Response to reviewer**
- Page 2 (line 65): “SSS” has not been introduced before.	Ok. Fixed.
- Page 2 (line 71): “Salvadori and De Mechele” should be “Salvadori and De Michele”	Ok. Fixed.
- Page 6 (line 193): “storm surge RLs”: sea level RLs? -	OK. Done.
Page 7 (line 255): the symbol after “this temporal difference” is not depicted properly in the manuscript pdf. The problem also appears in line 258 and 260.	OK. Fixed.