#### Response to Comments of Editor (Blue font in the manuscript)

## **Comments:**

Line 47. Could omit "have been".
Response: Thanks for your comment. Done.

## **Comments:**

(2) Line 51. "homogeneous coastal area" -> "unstratified coastal sea"? ["homogeneous" needs definition; "area" might be on land.]

**Response:** Thanks for your comment. "area" has been replaced by "zone". Yes, we should use "unstratified" in the manuscript.

#### **Comments:**

(3) Line 52. "it could be classified into" -> "the response could be classified as"? **Response:** Done.

# **Comments:**

(4) Line 167. ". . are the surface and bottom stresses . ." **Response:** Done.

#### **Comments:**

(5) Line 171. "a nondimensionalized could be" -> "scaling is"?Response: Done.

#### **Comments:**

(6) Lines 224-225. Please check. Better "where J2 is the second order Bessel function of the first kind."?

## Response: Done.

#### **Comments:**

(7) Line 227 (Equation 17). I think you need to state where J0 and J2 are evaluated.

Response: We have added the sentence as suggested.

<u>Line 227</u>: " $J_0$  and  $J_2$  are known and balanced by the characteristics of CSWs and topography."

#### **Comments:**

(8) Lines 252-253. "... Nodes for Mode 2 appear ..." **Response:** Done.

# **Comments:**

(9) Line 296. "main reason" for what?

**Response:** Many thanks. The main reason for the former sentence. I have added explanation into the manuscript.

Line 227: "That is, these signals are not so significant compared with the signals with large

amplitude."

### **Comments:**

(10) Line 306. "pointed out" -> "pointing out" or "showing"Response: Thanks. Done.

## **Comments:**

(11) Line 307. "The thick line . . ." I think this refers to 5(a) only; please say so.**Response:** Thanks. I have revised the sentence as suggested.<u>Line 307:</u> "The thick line in (a, c, d) is a 5% significance level against red noise"

#### **Comments:**

(12) Line 325. "propagating" -> "propagation"Response: Done.

# **Comments:**

(13) Line 336. "these" -> "such" unless Csanady (1978) studied this area (I don't think he did). **Response:** Done. Thanks for correction.

## **Comments:**

(14) Line 409. "... wind-forced and ..."**Response:** Thanks. Done.

# **Comments:**

(15) Line 433. Omit "the trapped characteristics as"?**Response:** Done.

# **Comments:**

(16) Table 2. Please ensure that the final version does not split (Distance)\*\* or Outlier(m) between rows.

Response: Thanks for reminding. I have changed font of the text.

# **Comments:**

(17) Line 465. Better ", which shows that" -> ":" ?Response: Thanks. Done.

# **Comments:**

(18) Line 470. Better "That" -> "SLA"Response: Done.

## **Comments:**

(19) Line 479. ". . Fig. 3a; they explain 25.1% . ." **Response:** Done.

## **Comments:**

(20) Lines 482-483. ". . 3b; it only . ." **Response:** Thanks. Done.

## **Comments:**

(21) Figure 10 and caption. Lines 507-508 "Red curves represent the along-track SLA..." does not match the figure with wind stress in red and SLA in blue.Response: Thanks so much. We have revised as suggested.

## **Comments:**

(22) Line 522. ". . the cross-shelf structure . ." **Response:** Done.

# **Comments:**

(23) Lines 543-546. You already used " $\alpha$ " as a wavenumber (line 186 et seq.) so different notation is preferable. Please also define Ekman number here since you do not have viscosity or a single length scale.

**Response:** Thanks. I have changed the letter from " $\alpha$ " to "e".

# **Comments:**

(24) Line 577. "neglective" -> "neglect of". Omit "wind stress and" - you discuss wind stress! **Response:** Thanks so much. We have revised as suggested.