



In situ sampling

physical signal (e.g. density)

biological signal

(e.g. biomass)

nutrient upwelling

horizontal transport

warm side : plankton community A cold side : plankton community B

advected patch: plankton community  $C \rightarrow C'$ 

advected patch: plankton community  $D \rightarrow D'$ 

frontal enhancement patch: plankton community  $E \rightarrow E' + E''$