Aula prática

- Class 2:
  - Absorption data: total absorption, absorption of diferente componentes and specific absorption coefficients. (in Excel)

Remembering the main absorption equations…

- at (total) = ap + ag + aw
- ap (particles) = aph + ad
- at -> total absorption
- ap -> absorption of particulate matter
- ag -> CDOM absorption (coloured dissolved organic matter)
- aw -> pure water absorption
- aph -> phytoplankton absorption
- ad -> detritus absorption (non-algal particulate matter)

Open Excel file ‘data_TP_5.xls’.

You will find optical data for coastal and ocean stations.

1. Compare spectra of total abosorption for coastal vs ocean;
   - Make the plot;
   - Describe the diferences and/or similarities between them;
2. Now considering the diferente absorption coefficients for the componentes (detritos, phytoplankton, etc)
   - Calculate the coefficients, if necessary.
   - Compare coeficiente values, i.e. ocean vs coastal.
   - Make the plot;
   - Describe the diferences and/or similarities.

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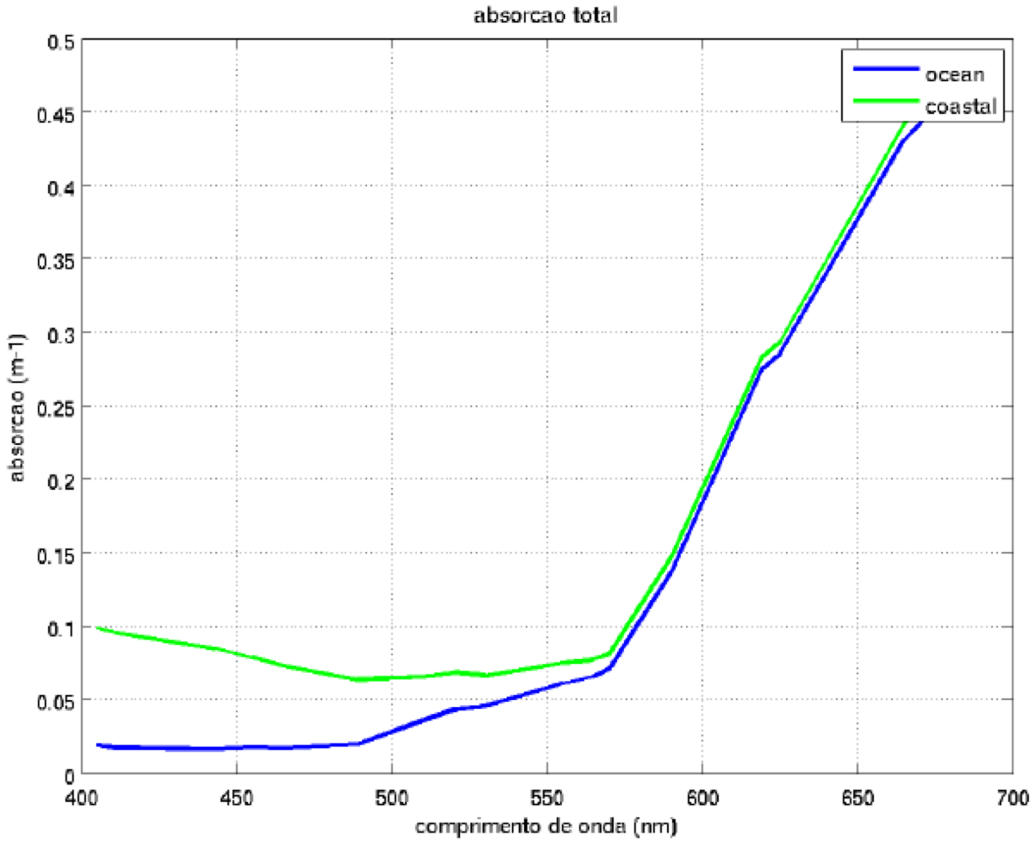
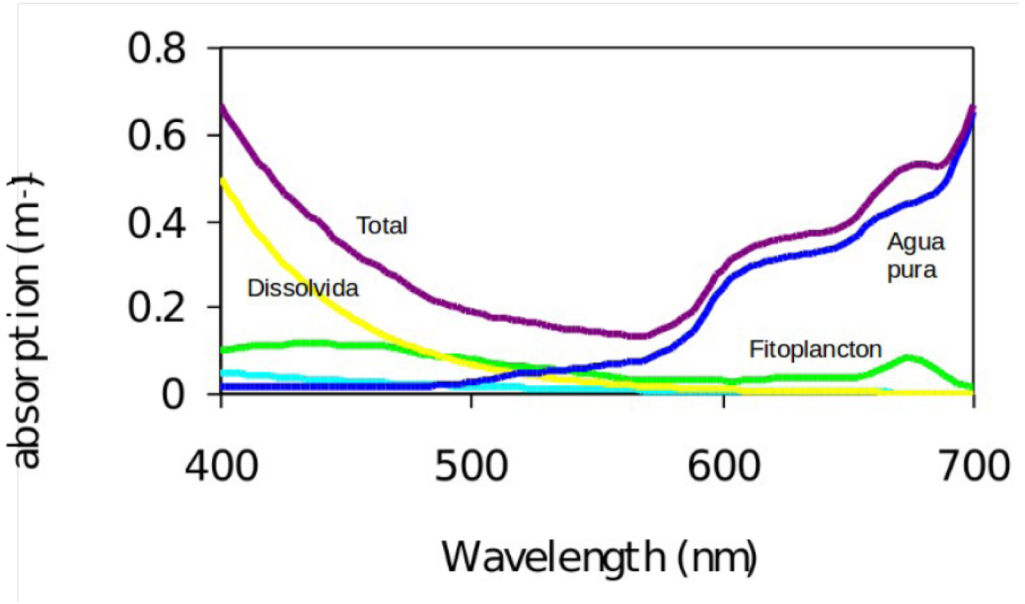
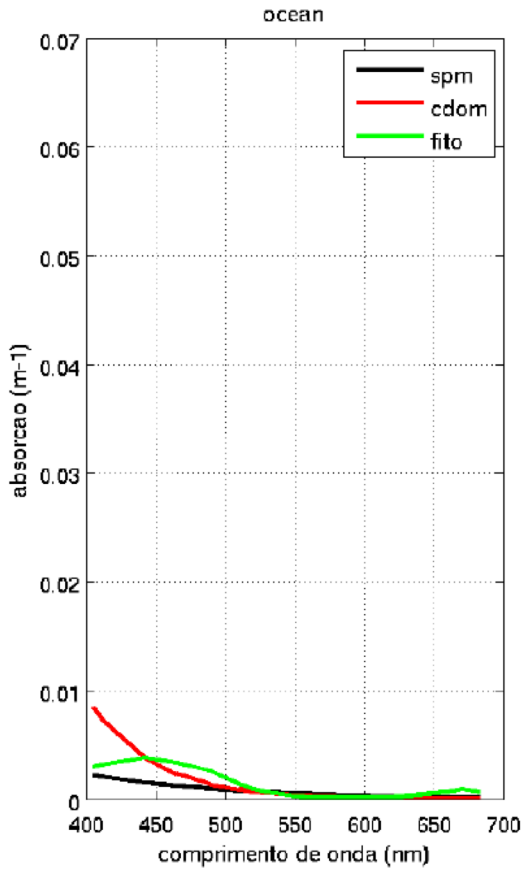
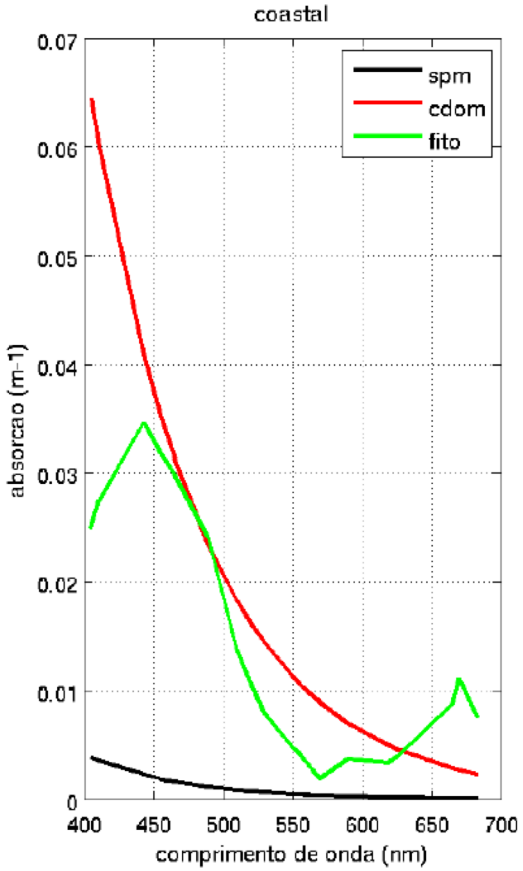
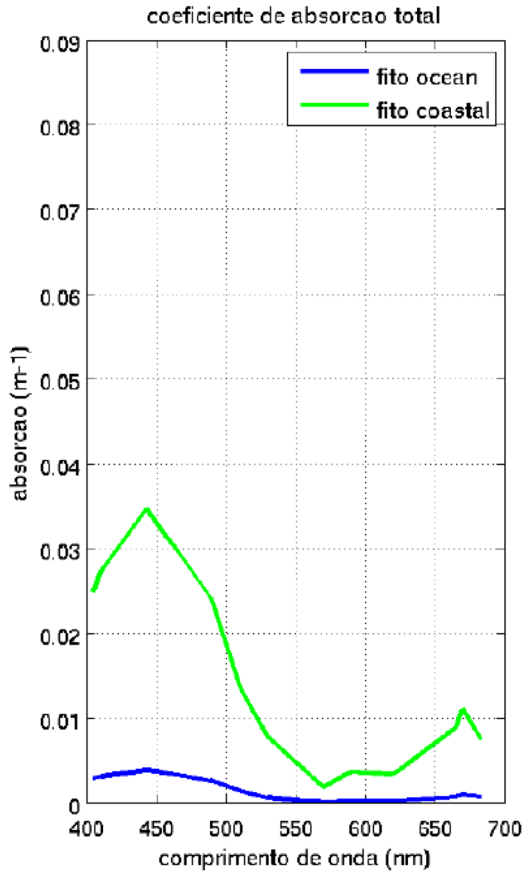
3. Calculate the specific absorption coefficient for phytoplankton.
   - Compare once more the values, i.e. coastal vs ocean.
   - Make a plot and describe differences and/or similarities.

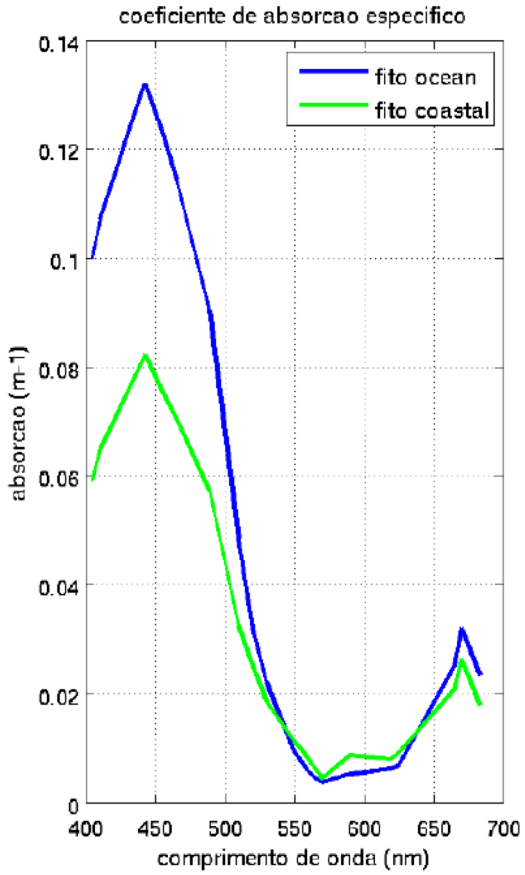

absorcao total
ocean
coastal
absorcao (m-1)
comprimento de onda (nm)
0
0.05
0.1
0.15
0.2
0.25
0.3
0.35
0.4
0.45
0.5
400
450
500
550
600
650
700


absorption (m-)
Wavelength (nm)
Total
Dissolvida
Agua pura
Fitoplancton
0
0.2
0.4
0.6
0.8
400
500
600
700


ocean
spm
cdom
fito
absorcao (m-1)
comprimento de onda (nm)


coastal
spm
cdom
fito
absorcao (m-1)
comprimento de onda (nm)


coeficiente de absorcao total
fito ocean
fito coastal
absorcao (m-1)
comprimento de onda (nm)


coeficiente de absorcao especifico
fito ocean
fito coastal
absorcao (m-1)
comprimento de onda (nm)

DETEÇÂO REMOTA: TEMPERATURA DA SUPERFÌCIE DO MAR E COR DO OCEANO

Promotor e Parceiros

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