



World-class Teaching...

... in a World-class Environment

BILBAO, 8 October – 30 October, 2020

COPENHAGEN, 2 November – 20 November, 2020

# International School of Chemometrics - ISC

## LEARN ADVANCED DATA ANALYSIS!

- **ISC** is a six-week introductory school to key aspects of advanced data analysis.
- **ISC** addresses PhD students/post-docs, professors, companies, etc.

| October      |              |              |              |              |    |    |
|--------------|--------------|--------------|--------------|--------------|----|----|
|              |              |              | 1            | 2            | 3  | 4  |
| 5            | 6            | 7            | 8            | 9            | 10 | 11 |
|              |              |              | Matlab       | Matlab       |    |    |
| 12           | 13           | 14           | 15           | 16           | 17 | 18 |
| Matlab       | Matlab       | Matlab       | Matlab       | Matlab       |    |    |
| 19           | 20           | 21           | 22           | 23           | 24 | 25 |
| Basic        | Basic        | Basic        | Basic        | Basic        |    |    |
| 26           | 27           | 28           | 29           | 30           | 31 |    |
| Intermediate | Intermediate | Intermediate | Intermediate | Intermediate |    |    |

| November |         |         |            |            |    |    |
|----------|---------|---------|------------|------------|----|----|
|          |         |         |            |            |    | 1  |
| 2        | 3       | 4       | 5          | 6          | 7  | 8  |
| Error    | Error   | Error   | Multiblock | Multiblock |    |    |
| 9        | 10      | 11      | 12         | 13         | 14 | 15 |
| Sparse   | Sparse  | Nonlin  | Nonlin     | GLUE       |    |    |
| 16       | 17      | 18      | 19         | 20         | 21 | 22 |
| Special  | Special | Special | Special    | Special    |    |    |
| 23       | 24      | 25      | 26         | 27         | 28 | 29 |

## CREATE YOUR OWN ISC - 2020

- Join the seminars that best fit you!
- No minimum of seminars required
- Total of 14 ECTS offered!
- 9 independent modules!

## PRICELIST FOR ISC-2020:

- **Bilbao (BIO) part:**
  - Academia: 100 euros per credit
  - Industry: 300 euros per credit
- **Copenhagen (CPH) part:**
  - Academia: 800 DKK per credit
  - Industry: 2000 DKK per credit

**To enroll, or further information  
please send an e-mail:  
josemanuel.amigo@ehu.eus**

| Dates       | Topic              | Title   | ECTS | Teacher            | Place |
|-------------|--------------------|---|------|--------------------|-------|
| 8 - 16 Oct  | Matlab:            | Introduction to Matlab for Multivariate Data Analysis     | 3    | José Manuel Amigo  | BIO   |
| 19 - 21 Oct | Basics.Chem:       | Exploratory (PCA), preprocessing, Multivariate Regression | 1.5  | José Manuel Amigo  | BIO   |
| 22 - 23 Oct | Basics.DoE:        | Design of Experiments                                     | 1    | Nestor Etxebarria  | BIO   |
| 26 - 27 Oct | Int.MCR:           | Multivariate Classification                               | 1    | Davide Ballabio    | BIO   |
| 28 - Oct    | Int.VarSel:        | Variable selection  | 0.5  | José Manuel Amigo  | BIO   |
| 29 - 30 Oct | Int.Class:         | Multivariate Curve Resolution                             | 1    | Anna de Juan       | BIO   |
| 2 - 4 Nov   | Chall.Error:       | Multivariate Error  | 1    | Ricard Boqué       | CPH   |
| 5 - 6 Nov   | Chall.Multiblock:  | Multiblock analysis                                       | 1    | Federico Marini    | CPH   |
| 9 - 10 Nov  | Chall.Sparse:      | Sparse Modelling  | 1    | Morten A. Rasmusen | CPH   |
| 11 - 12 Nov | Chall.Nonlin:      | Non-linear modelling                                      | 1    | Rasmus Bro         | CPH   |
| 13 - Nov    | Chall.GLUE:        | How not to make chemometrics                              | 0    | José Manuel Amigo  | CPH   |
| 16 - 20 Nov | Spe.Multiway:      | Multiway data analysis                                    | 2    | Rasmus Bro         | CPH   |
| 16 - 20 Nov | Spe.Hyperspectral: | Hyperspectral Image Analysis                              | 2    | José Manuel Amigo  | CPH   |

## PLACE:

- **Bilbao (BIO):** Research Centre for Experimental Marine Biology & Biotechnology. Areatza Pasealekua. 48620 Plentzia – Bizkaia. Basque Country (Spain) (<http://www.ehu.eus/PIE/>)
- **Copenhagen (CPH):** Department of Food Sciences. University of Copenhagen. Rolighedsvej 26, DK-1958 Frederiksberg (Denmark) (<https://food.ku.dk/english/>)