

## 1st Term

FROM **MONDAY 8th of September** TO **FRIDAY 19th December 2014** [1 ECTS=7 hours]

UDC, USC & UVigo

|         | MONDAY           | TUESDAY  | WEDNESDAY  | THURSDAY   | FRIDAY                 |
|---------|------------------|--|--|--|------------------------|
| 9 - 10  |                  |  | EDOSD (Comp)   | <sup>(1)</sup> EDP(COMP)/ <sup>(2)</sup> MNEDP(COMP) | Opt+Control (OP)       |
| 10 - 11 | M2C (Comp-Sp-MS) |  | <sup>(1)</sup> EDP(COMP)/ <sup>(2)</sup> MNEDP(COMP) | M2C (Comp-Sp-MS)                                     | Opt+Control (OP)       |
| 11 - 12 | M2C (Comp-Sp-MS) | <sup>(1)</sup> CAD (OP)* / <sup>(2)</sup> MNEDP (COMP)**                             | <sup>(1)</sup> EDP(COMP)/ <sup>(2)</sup> MNEDP(COMP) | EDOSD (COMP)   | Opt+Control (OP)       |
| 12 - 13 | MNP [Comp]       | <sup>(1)</sup> CAD (OP)* / <sup>(2)</sup> MNEDP (COMP)**                             | C-P (OP)*  | EDOSD (COMP)   | MNGSE (OP)             |
| 13 - 14 | MNP [Comp]       | <sup>(1)</sup> CAD (OP)* / <sup>(2)</sup> MNEDP (COMP)**                             | C-P (OP)* (Fin:13.30)                                | MNP (COMP)   | MNGSE (OP) (Fin:13.30) |
| 14 - 15 |                  |  |  |  |                        |
| 15 - 16 |                  | <sup>(1)</sup> CAD(OP)* / <sup>(2)</sup> EDP (COMP)**<br><sup>(3)</sup> MNEDP (COMP) | TPI (2º)   | ACSO (OP ) (Inc:15.30)                               |                        |
| 16 - 17 | MNEstocast (OP)  | <sup>(1)</sup> CAD(OP)* / <sup>(2)</sup> EDP (COMP)**<br><sup>(3)</sup> MNEDP (COMP) | TPI (2º)   | ACSO (OP )   | TPI (2º)               |
| 17 - 18 | MNEstocast (OP)  | <sup>(1)</sup> CAD (OP) / <sup>(2)</sup> EDP (COMP)**<br><sup>(3)</sup> MNEDP (COMP) | TPI (2º)   | MNEstocast (OP)                                      | IS (2º)                |
| 18 - 19 |                  |  | IS (2º)  | MP (2º)  | IS (2º)                |
| 19 - 20 |                  |  | MP (2º)  | MP (2º)  |                        |

UPM

|             | MONDAY | TUESDAY | WEDNESDAY | THURSDAY | FRIDAY |
|-------------|--------|---------|-----------|----------|--------|
| 16:30-18:00 | CCAM   |         | CCAM      |          |        |
| 18:00-19:30 | ESF    |         | ESF       |          |        |

|  |  |                                |
|--|--|--------------------------------|
| <b>Santiago:</b> Faculty of Mathematics (USC)    | <b>Vigo:</b> School of Telecommunications Engineering (UVigo)  | <b>A Coruña &amp; Santiago</b> |
| <b>Coruña:</b> Faculty of Computer Science (UDC) | <b>Madrid:</b> School of Aeronautics & Space Engineering (UPM) | <b>Vigo &amp; Santiago</b>     |
| <b>UDC, USC, UVigo:</b> 2nd year                 |  |                                |

## 2nd Term (January-March: UDC, USC & UVigo)

FROM **TUESDAY 27th January** TO **FRIDAY 13th March 2015** [1 ECTS=7 hours]

### UDC, USC & UVigo

|         | MONDAY      | TUESDAY    | WEDNESDAY  | THURSDAY   | FRIDAY       |
|---------|-------------|------------|------------|------------|--------------|
| 9 - 10  | M2Ac (OP)   | MSól (OP)  | EO (OP)    | EO (OP)    | Amp-VF (OP)  |
| 10 - 11 | M2Ac (OP)   | MSól (OP)  | EO (OP)    | EO (OP)    | Amp-VF (OP)  |
| 11 - 12 | MEC (OP)    | M2Ac (OP)  | M2Ac (OP)  | MSól (OP)  | EO (OP)      |
| 12 - 13 | MSól (OP)   | M2Ac (OP)  | M2Ac (OP)  | MSól (OP)  | EO (OP)      |
| 13 - 14 | MSól (OP)   | MEC (OP)   | MFlu (OP)  | MFlu (OP)  | MFlu (OP)    |
| 14 - 15 | Amp-VF (OP) | MEC (OP)   | MFlu (OP)  | MFlu (OP)  | MFlu (OP)    |
| 15 - 16 |             |            |            |            |              |
| 16 - 17 | M2Fin (OP)  | M2Fin (OP) | M2-MA (OP) | M2-MA (OP) | ProgC++ (OP) |
| 17 - 18 | M2Fin (OP)  | M2Fin (OP) | M2-MA (OP) | M2-MA (OP) | ProgC++ (OP) |
| 18 - 19 | M2Fin (OP)  | M2Fin (OP) | M2-MA (OP) | M2-MA (OP) | ProgC++ (OP) |

### UPM & UC3M

|              | MONDAY    | TUESDAY   | WEDNESDAY       | THURSDAY        | FRIDAY |
|--------------|-----------|-----------|-----------------|-----------------|--------|
| 15:00 -16:30 |           | PINV (OP) |                 | PINV (OP)       |        |
| 16:30-18:00  | COMB (OP) | MEMS (OP) | MP (Comp-Sp-MS) | MEMS (OP)       |        |
| 18:00 -19:30 | COMB (OP) | TURB (OP) | TURB (OP)       | MP (Comp-Sp-MS) |        |
| 19:30-21:00  |           | EH (OP)   |                 | EH (OP)         |        |

**Santiago:** Faculty of Mathematics (USC)

**Vigo:** School of Telecommunications Engineering (UVigo)

**A Coruña:** Faculty of Computer Science (UDC)

**Madrid:** School of Aeronautics & Space Engineering (UPM)

**Madrid:** EP Superior (UC3M)

## 2nd Term (March-May: UDC, USC & UVigo)

FROM **MONDAY 23rd March** TO **13th May 2015** [1 ECTS=7 hours]

### UDC, USC & UVigo

|         | MONDAY         | TUESDAY         | WEDNESDAY       | THURSDAY        | FRIDAY          |
|---------|----------------|-----------------|-----------------|-----------------|-----------------|
| 9 - 10  | Soft-Ac (OP) * | Soft-Ac (OP) *  | Soft-MA (OP) *  | Amp-EF (OP)     |                 |
| 10 - 11 | Soft-Ac (OP) * | Soft-Ac (OP) *  | Soft-MA (OP) *  | Amp-EF (OP)     | Amp-EF (OP)     |
| 11 - 12 | Soft-Ac (OP) * | Soft-Flu (OP) * | Soft-EO (OP) *  | Soft-Sol (OP) * | Soft-Fin (OP) * |
| 12 - 13 | Soft-Ac (OP) * | Soft-Flu (OP) * | Soft-EO (OP) *  | Soft-Sol (OP) * | Soft-Fin (OP) * |
| 13 - 14 |                | Soft-Flu (OP) * | Soft-EO (OP) *  | Soft-Sol (OP) * | Soft-Fin (OP) * |
| 14 - 15 |                |                 |                 |                 |                 |
| 15 - 16 | Soft-EO (OP) * | Soft-Sol (OP) * | Soft-MA (OP) *  | Soft-Flu (OP) * | Soft-Fin (OP) * |
| 16 - 17 | Soft-EO (OP) * | Soft-Sol (OP) * | Soft-MA (OP) *  | Soft-Flu (OP) * | Soft-Fin (OP) * |
| 17 - 18 | Soft-EO (OP) * | Soft-Sol (OP) * | Soft-MA (OP) *  | Soft-Flu (OP) * | Soft-Fin (OP) * |
| 18 - 19 | RCCD (OP)      | AnalVarEDP (OP) | Soft-MA (OP) *  | RCCD (OP)       |                 |
| 19 - 20 | RCCD (OP)      | AnalVarEDP (OP) | AnalVarEDP (OP) |                 |                 |

### UPM & UC3M

|              | MONDAY    | TUESDAY   | WEDNESDAY       | THURSDAY        | FRIDAY |
|--------------|-----------|-----------|-----------------|-----------------|--------|
| 15:00 -16:30 |           | PINV (OP) |                 | PINV (OP)       |        |
| 16:30-18:00  | COMB (OP) | MEMS (OP) | MP (Comp-Sp-MS) | MEMS (OP)       |        |
| 18:00 -19:30 | COMB (OP) | TURB (OP) | TURB (OP)       | MP (Comp-Sp-MS) |        |
| 19:30-21:00  |           | EH (OP)   |                 | EH (OP)         |        |

**Santiago:** Faculty of Mathematics (USC)

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**Madrid:** School of Aeronautics & Space Engineering (UPM)

**Madrid:** School of Engineering (UC3M)

## ACRONYMS AND NOTATIONS USED

FIRST TERM: 8<sup>th</sup> September-19<sup>th</sup> December 2014

### USC, UDC & UVigo

**M2C (Comp-Sp, 6):** Continuum mechanics

**MNP (Comp, 6):** Numerical methods and programming

**EDP (Comp, 6):** Partial differential equations

**EDOSD (Comp, 6):** Ordinary differential equations / Dynamical systems

**MNEDP (Comp, 6):** Numerical methods for partial differential equations

**CAD (OP, 6):** Computer-aided design

**ACSO (OP, 3):** Computer architectures and operative systems

**C-P (OP, 3):** Parallel computing

**MN-Estocas (OP, 6):** Stochastic numerical methods

**Opt+Control (OP, 6):** Optimization and control

**MNGSE (OP, 3):** Numerical methods for large systems of equations

### UPM & UC3M

**CCAM (OP, 6):** Advanced scientific calculus with MATLAB

**ESF (OP, 6):** Stability of physical systems

**SECOND TERM 1: 27<sup>th</sup> January-13<sup>th</sup> March 2015**

**USC, UDC & UVigo**

**M2AC (OP, 6):** Acoustics

**MSol (OP, 6):** Solid Mechanics

**M2Fin (OP, 6):** Mathematical modelling in finance

**EO (OP, 6):** Electromagnetism and Optics

**MFlu (OP, 6):** Fluid mechanics

**M2-MA (OP, 6):** Mathematical modelling in the environment

**Amp-VF (OP, 3):** Advanced finite volumes

**MEC (OP, 3):** Boundary element methods

**Prog-C++ (OP, 3):** Programming in C++

**UPM & UC3M**

**COMB (OP, 6):** Combustion

**PINV (OP, 6):** Inverse problems and image reconstruction

**MEMS (OP, 6):** Fluidthermal MEMS and power MEMS

**MP (OB, 6):** Perturbation methods

**EH (OP, 6):** Hydrodynamical stability

**TURB (OP, 6):** Turbulence

**SECOND TERM 2: 23<sup>rd</sup> March-13<sup>th</sup> May 2015**

**USC, UDC & UVigo**

**Soft-AC (OP, 6):** Professional software in acoustics

**Soft-Sol (OP, 6):** Professional software in solid mechanics

**Soft-Fin (OP, 6):** Professional software in finance

**Soft-EO (OP, 6):** Professional software in electromagnetism and optics

**Soft-Flu (OP, 6):** Professional software in fluid mechanics

**Soft-MA (OP, 6):** Professional software in environmental issues

**AnalVarEDP (OP, 3):** Variational analysis of partial differential equations

**Amp-EF (OP, 3):** Advanced finite elements

**RCCD (Op, 3):** Computer nets and distributed computing

**UPM & UC3M**

**COMB (OP, 6):** Combustion

**PINV (OP, 6):** Inverse problems and image reconstruction

**MEMS (OP, 6):** Fluidthermal MEMS and power MEMS

**MP (OB, 6):** Perturbation methods

**EH (OP, 6):** Hydrodynamical stability

**TURB (OP, 6):** Turbulence

<sup>(1)</sup> From 8th September to 25th October.

<sup>(2)</sup> From 27th October to 19th December.

<sup>(3)</sup> The two weeks with compulsory practical exercises will be carried out as follows: the 3hours of Wednesday and Thursday will be swapped with the 3 hours of EDP on Tuesdays



MÁSTER EN  
MATEMÁTICA  
INDUSTRIAL



UNIVERSIDADE DA CORUÑA

Universidade de Vigo



Universidad  
Carlos III de Madrid



POLITÉCNICA

Students must attend this subject where the professor is, due to software licensing issues.

\* Always / most days

\*\* some days