

**ALLEGATO B - ANNEX B: Study Programme “Padova to PSL”**

| YEAR | SEAT   | TEACHING  | ECTS CREDITS | ITALIAN SSD / DISCIPLINE   | TPOLOGY (ITALIAN RULES) | AREA |
|------|--------|---|--------------|--|-------------------------|------|
| 1°   | PADOVA | DIFFERENTIAL GEOMETRY   | 8            | MAT/03   | CHARACTERISING          |      |
|      |        | TEACHINGS IN THE FOLLOWING LIST:<br><ul style="list-style-type: none"> <li>INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS</li> <li>FUNCTIONS THEORY</li> <li>CALCULUS OF VARIATIONS</li> <li>ADVANCED ANALYSIS</li> </ul>   | 16           | MAT/05   | CHARACTERISING          |      |
|      |        | STOCHASTIC ANALYSIS   | 7            | MAT/06   | CHARACTERISING          |      |
|      |        | TEACHING IN THE FOLLOWING LIST:<br><ul style="list-style-type: none"> <li>DYNAMICAL SYSTEMS</li> <li>SYMPLECTIC MECHANICS</li> <li>NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS</li> </ul>  | 7            | MAT/07<br>MAT/08   | CHARACTERISING          |      |
|      |        | TEACHINGS IN THE FOLLOWING LIST:<br><ul style="list-style-type: none"> <li>INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS</li> <li>FUNCTIONS THEORY</li> <li>CALCULUS OF VARIATIONS</li> <li>ADVANCED ANALYSIS</li> <li>DIFFERENTIAL EQUATIONS</li> <li>HARMONIC ANALYSIS</li> <li>INTRODUCTION TO STOCHASTIC PROCESSES</li> <li>STOCHASTIC METHODS FOR FINANCE</li> <li>OPTIMIZATION FOR DATA SCIENCE</li> <li>COMPUTATIONAL FINANCE</li> <li>DYNAMICAL SYSTEMS</li> <li>SYMPLECTIC MECHANICS</li> <li>NUMERICAL METHODS FOR DIFFERENTIAL EQUATIONS</li> </ul> | 22           | MAT/05<br>MAT/06<br>SECS-S/06<br>MAT/09<br>SECS-P/05<br>MAT/07<br>MAT/08 | COMPLEMENTARY           |      |
|      |        |   | 60           |  |                         |      |

|    |                |   |    |                                      |                |  |
|----|----------------|---|----|--------------------------------------|----------------|--|
| 2° | PARIS DAUPHINE | TEACHINGS IN THE FOLLOWING LIST:<br><ul style="list-style-type: none"> <li>INTRODUCTION TO NON-LINEAR PDES</li> <li>INTRODUCTION TO EVOLUTION PDES</li> <li>MEAN FIELD GAMES</li> <li>STOCHASTIC CONTROL</li> <li>JUMP PROCESSES</li> <li>LARGE DEVIATION AND APPLICATIONS</li> <li>HAMILTONIAN DYNAMICAL SYSTEM</li> <li>INTRODUCTION TO CELESTIAL AND HAMILTONIAN MECHANICS</li> <li>NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS AND CONTROL</li> <li>MONTE-CARLO AND DETERMINISTIC METHODS FOR PARABOLIC EQUATIONS</li> </ul> | 12 | MAT/05<br>MAT/06<br>MAT/07<br>MAT/08 | CHARACTERISING |  |
|    |                | FREE EXAMS  | 8  |                                      | FREE           |  |
|    |                | SEMINARS  | 4  |                                      | OTHER          |  |
|    |                | MASTER THESIS   | 36 |                                      | THESIS         |  |
|    |                |   | 60 |                                      |                |  |