

SCIENTIFIC PROGRAM and CULTURAL ACTIVITIES

SCHEDULE	
MORNINGS.	
Waking up.	07:30
Breakfast	From 08:00 to 08:30
On our way to the Faculty	From 08:30 to 08:45
Getting together	From 08:45 to 08:55
To begin Problems (Problemas para abrir boca...)	From 09:00 to 09:50
Maths Session	From 10:00 to 11:30
Break	From 11:30 to 12:00
Conference.	From 12:00 to 13:00
On our way to the dorm	From 13:00 to 13:15
Swimming pool.	From 13:15 to 14:00
Lunch	From 14:00 to 15:00
AFTERNOONS.	
Break & Miscellaneous activities	From 15:00 to 16:45
On our way to the Faculty	From 16:45 to 17:00
Workshops.	From 17:00 to 18:30
Sports Competitions. Swimming pool. Living together	From 19:00 to 21:00
Dinner	From 21:00 to 21:30
Chat, Living together. Camp games.	From 21:30 to 22:30
Prepare to sleep.	From 22:30 to 23:00
Silence	23:00

Getting together: activities for each day will be detailed, and unforeseen issues will be handled (if any). This will be done on a daily basis at the “Sala de Estudios” (Study Room)

Sessions: *To begin Problems*

[Every ordinary day except July 15th, because of *Level Exam* and July 22nd, because of the Mathematical visit to the Alhambra of Granada].

Coordinating professors: Antonio Rojas, José Ma. Tornero, Rafael Espínola.

Assistents: Monitores

Place: “Sala de Estudios” (Study Room)

This session will be based on mathematics problems solving, following the Mathematical Olympic style.

Students will be organized in 8-10 members groups and will be given math problems to solve.

On July 26th, this session will change its name to ***To end Problems***.

Problems pending from previous sessions will be discussed and solved.

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July 14th Sunday	<p style="color: red;">Arrival. Students reception. Logistic groups formation. Swimming pool. Living together.</p>
July 15th Monday	<p style="color: red;">From 9 to 9:15: Welcome Words from the Dean of the Faculty of Mathematics</p> <p style="color: red;">From 9:15 to 10:15 Level exam Classrooms 01, 02 Teachers: Lola Ariza, Alberto Herrero</p> <p style="text-align: center; color: red;">Workshop: MATH GAMES ROOM From 10:15 to 12:15 and from 16:30 to 18:30h All groups together,</p> <p style="color: red;">Study room Teachers: José Muñoz, Juan A. Hans y Antonio Fernández-Aliseda (Alquerque group)</p>

	<p>From 12:15 to 13 (All groups together) Lecture: <i>Computational Complexity</i> Big Hall. Professor: Mario de J. Pérez Jiménez</p> <hr style="border-top: 1px dashed red;"/> <p>From 16: 30 to 18:30h Workshop: <i>Math game room</i> Study room, Teachers: Alquerque group</p> <p>19:30: Couples game (Alberto Herrero) Living together and activities in the dorm</p>
<p>July 16th Tuesday</p>	<p>From 9 to 10h: To begin ... Problems From 10 a 10:30h. General Informatio. Assembly.</p> <p style="text-align: center;">OPEN CEREMONY From 11 to 13</p> <p style="text-align: center;">(Academics authorities, Organization) Lecture (1/2 hour): <i>The universe of prime numbers</i> Professor: Luis Narváez Interventions.</p> <hr style="border-top: 1px dashed red;"/> <p>From 17 to 18:30 IMUS Visit Introducing: Emilio Carrizosa, Director Some activities</p>
<p>July 17th Wednesday</p>	<p>From 9 to 10: To begin ... Problems</p> <p>From 10 to 13. Group 3 <i>Math battle.</i> Study room Professors: Lola Ariza, Ana Martín</p> <p style="text-align: center;">GRAPH THEORY From 10 to 13. Groups 1, 2</p> <p>From 10 to 11. Group 1, 2 together Lecture: <i>Graph Theory</i> Big Hall Professors: Alberto Márquez, Clara Grima</p> <p>From 11:30-13 Sessions: <i>Some applications of Graph Theory to Games</i> Computer room Professors: Clara Grima (Group 1), Alberto Márquez (Group 2)</p> <hr style="border-top: 1px dashed red;"/> <p>From 16:30 to 18:30 Workshop: Bachata and Mathematics Study room Professors: José C. Gámez, José L. Ríos and Alberto César</p>
<p>July 18th Thursday</p>	<p>From 9 to 10h: To begin ... Problems</p> <p>From 10 to 13. Group 1 <i>Spirals with Geogebra</i> Computer room Teachers: Miguel de la Fuente, Floro Damián Aranda</p> <p>From 10 to 13. Grupo 2</p>

	<p><i>Math battle.</i> Study room Professors: Lola Ariza, Ana Martín.</p> <p style="text-align: center;">ROBOTIC From 10 to 13. Grupo 3</p> <p>From 10 to 11 Lecture: <i>From washing machines to nanobots: What is a robot?</i> Professor: Ignacio Pérez Hurtado From 11:30 to 13. Session: <i>C programming: application to robotics</i> Professor: Ignacio Pérez Hurtado</p> <p>-----</p> <p>From 17 to 18:30 Workshop: Magic Math Study room Professor: Ramón Piedra</p>
<p>July 19th Friday</p>	<p>From 9 to 10h: To begin ... Problems</p> <p>From 10 to 11:30. Group 1 Session: <i>The Catalan numbers</i> Aula 01 Professors: Mercedes Rosas, Emmanuel Briand.</p> <p>From 10 to 11:30. Group 2 Session: <i>Historical Problems in the History of Mathematics</i> Classroom 01 Professors: Ana Martín, Miguel L. Rodríguez</p> <p>From 10 to 11:30. Group 3 Session: <i>Mathematical modeling in population dynamics</i> Computer room Professors: José A. Langa, Antonio Suárez</p> <p>All groups together (from 12 to 13h): Lecture: <i>A mathematical visit to the Alhambra.</i> Big Hall. Professor: José Martínez Arosa</p> <p>-----</p> <p>From 17 to 18:30 Workshop: <i>The Moebius band</i> Study room Teacher: Juan Miguel Ribera Puchades, Lucía Rotger</p>
<p>July 20th Saturday</p>	<p style="text-align: center;">REAL ALCÁZAR VISIT (9:30 – 11h). Entrance Halt door, in the Flags Patio.</p> <p style="text-align: center;">CATHEDRAL OF SEVILLE VISIT + GIRALDA (11:30-13h) Arrival to Gold Tower. Visit to the Cathedral.; Entrance: Alligator door) Return to the dorm. Swimming pool. Afternoon: Activities in the dorm</p>
<p>July 21th Sunday</p>	<p style="text-align: center;">GYMKANA (9:30 – 13h) Barrio de Santa Cruz</p> <p>Return to the dorm at 13h. Swimming pool. Free time. Living together.</p>
<p>July 22th Monday</p>	<p style="text-align: center;">Math Visit to LA ALHAMBRA</p> <p>Departure: 8:30 Arrival: 11:45. Mirador de San Cristobal Walk around Granada. Picnic 16h. Visit to La Alhambra (18h. Visit to Los Palacios Nazaríes). Return: 19h. From the parking of La Alhambra. 22:15: Cold dinner at dorm</p>

<p>July 23th Tuesday</p>	<p>From 9 to 10h: To begin ... Problems</p> <p>From 10 to 13. Group 1 <i>Math battle.</i> Study room Professors: Anna Dubova, Lola Ariza.</p> <p>From 10 to 11:30. Group 2 Session: <i>Algorithms and Mathematics with Scratch</i> Computer room Professors: José F. Quesada Moreno, José F. Quesada Marañón.</p> <p>From 10 to 11:30. Group 3 Session: <i>What does a fractal look like?</i> Computer room Professor: M^a Ángeles Japón</p> <p>From 12 to 13. Groups 2, 3 together Lecture: <i>Is Mathematics the language of the Universe?</i> Big Hall Professor: Renato Álvarez Nodarse</p> <p>-----</p> <p>From 17 to 18:30 Workshop: <i>The Hexaflectagons</i> Study room Teacher: Alberto Herrero</p>
<p>July 24th Wednesday</p>	<p>From 9 to 10h: To begin ... Problems</p> <p>From 10 to 11:30. Group 1 <i>Logos with Geogebra</i> Computer room Teachers: Eva Acosta, Miguel Fco. Pino</p> <p>From 10 to 11:30. Group 2 Session: <i>Playing with knots</i> Study room. Professor: Juan González Meneses</p> <p>From 10 to 11:30. Group 3 Session: <i>Mathematics as the language of the Universe</i> Computer room Professor: Renato Álvarez Nodarse</p> <p>From 12 to 13. All Groups together Lecture: <i>Women and Mathematics</i> Big Hall. Professor: Isabel Fernández</p> <p>-----</p> <p>From 17 to 18:30 Workshop: Geometry with FIMO Study room Teacher: Reyes Gallardo</p>
<p>July 25th Thursday</p>	<p>Activities for students who didn't pass to the Final (Battles).</p> <p>From 9 to 10h: To begin ... Problems</p> <p>From 10 to 11:30 Session: <i>Ruled surfaces building workshop</i> Study room Teacher: Alberto Herrero</p>

	<p>From 12 to 13. Lecture <i>Modelling for Optimization in a nutshell</i> Big Hall. Professor: Justo Puerto</p> <p>=====</p> <p>Activities for students with access to the Final (Battles)</p> <p>From 9 to 13 Math Battles: Final Aula 01 Professors: Lola Ariza, Anna Dubova, Ana Martin.</p> <p>-----</p> <p>From 17 to 18:30 Workshop: <i>Challenging Problems in Probability</i> Study room Professor: Antonio Gámez</p>
<p>July 26th Friday</p>	<p>From 9 to 10h: To end ... Problems</p> <p>From 10 to 11:30. Group 1 Session: <i>Perspective, Art and Geometry.</i> Computer room Professors: Belén Guemes, Félix Gudiel</p> <p>From 10 to 11:30. Group 2 Session: <i>Modelling 3D</i> Computer room Professors: Raúl Falcón, Ricardo Ríos</p> <p>From 10 to 11:30. Group 3 Session: <i>Straightedge and compass constructions: Squaring a circle and other solved problems</i> Computer room Professors: Miguel A. Olalla, Jesús Soto</p> <hr/> <p>From 12 to 13. Lecture: <i>Criptografía</i> Big Hall. Professor: Jesús Soto</p>
<p>July 27th Saturday</p>	<p>10:30 h. Outing to Parque María Luisa. Math activities at the park (Professors: Ricardo Ríos, Raúl Falcón) 13:30 Picnic at the park. Walk at the park. 18:30h: Return to the dorm</p>
<p>July 28th Sunday</p>	<p>Farewell Free time until the departure. Games, Films, etc.</p>