## **BISS 2022**

## Science & Engineering of Polymers & Colloids – 1<sup>st</sup> week (July, 4-8)

| Date / Time                     | Monday, 4th  | Tuesday, 5th   | Wednesday, 6th  | Thursday, 7th  | Friday, 8th  |
|---------------------------------|--|--|---|--|--|
| Lecture<br><b>09:15 – 10:00</b> | General Welcome<br>BISS Headquarter                                  | Responsive Polymers<br>Seema Agarwal                                 | Stimulus responsive and<br>shape memory soft matter<br>towards mimicking biology<br>Olli Ikkala | Sonochemical synthesis of<br>colloids<br>Muthupandian Ashokkumar   | Sonochemical synthesis of<br>polymers<br>Muthupandian Ashokkumar             |
| Lecture<br><b>10:15 – 11:00</b> | Introduction Polymers<br>Mukundan Thelakkat                          | Responsive Polymers<br>Seema Agarwal                                 | Stimulus responsive and<br>shape memory soft matter<br>towards mimicking biology<br>Olli Ikkala | Sonochemical synthesis of<br>colloids<br>Muthupandian Ashokkumar   | Sonochemical synthesis of<br>polymers<br>Muthupandian Ashokkumar             |
| Lecture<br><b>11:15 – 12:00</b> | Introduction Polymers  | Seminar: Retro-synthesis of multifunctional                          | Stimulus responsive and<br>shape memory soft matter<br>towards mimicking biology<br>Olli Ikkala | Metal nanocrystals-<br>synthesis and<br>spectroscopy<br>Paul Mulvaney                                    | Semiconductor<br>nanocrystals-synthesis and<br>spectroscopy<br>Paul Mulvaney |
|                                 | Mukundan Thelakkat   | advanced materials<br>Markus Retsch                                  |   |  |  |
| 12:00 - 13:30                   | Lunchbreak   |  |   |  |  |
| Lecture<br><b>13:30 – 14:15</b> | Introduction Colloids  | Colloidal characterization<br>methods                                | Polymer nanofibrous<br>nonwovens by<br>electrospinning for<br>advanced applications             | Inorganic and metal<br>colloids, properties,<br>synthesis, characterization<br>and applications          | Sizing nanocrystals by<br>analytical<br>ultracentrifugation                  |
|                                 |  | Georg Papastavrou  | Andreas Greiner   | Paul Mulvaney  | Paul Mulvaney  |
| Lecture<br><b>14:30 – 15:15</b> | Introduction Colloids  | Advanced colloidal<br>characterization<br>techniques                 | Polymer nanofibrous<br>nonwovens by<br>electrospinning for<br>advanced applications             | From molecular building<br>blocks to supramolecular<br>nanofibers  |  |
|                                 | Markus Retsch  | Georg Papastavrou  | Andreas Greiner   | Hans-Werner Schmidt  |  |
| 15:15 – 15:45                   |  |  |   |  |  |
| Lecture<br><b>15:45 – 16:30</b> | Campus Tour: Research<br>infrastructure for<br>polymers and colloids | Practical Course I: Self-<br>assembled monolayers<br>and diffraction | Practical Course II:  | From molecular building<br>blocks to superstructures<br>with complex morphologies<br>Hans-Werner Schmidt |  |