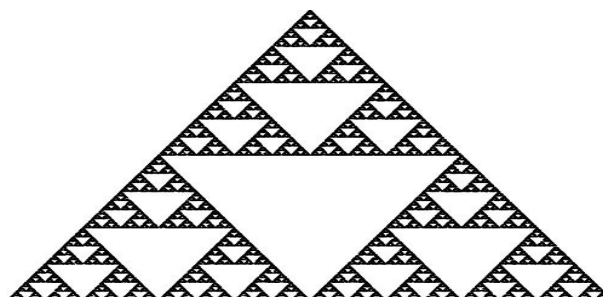
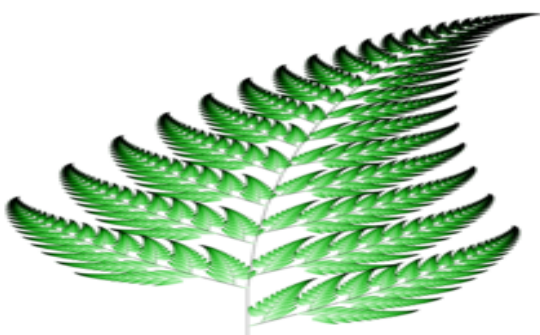


# FGRF-2022 Program Schedule

(September 25 - October 01, 2022)

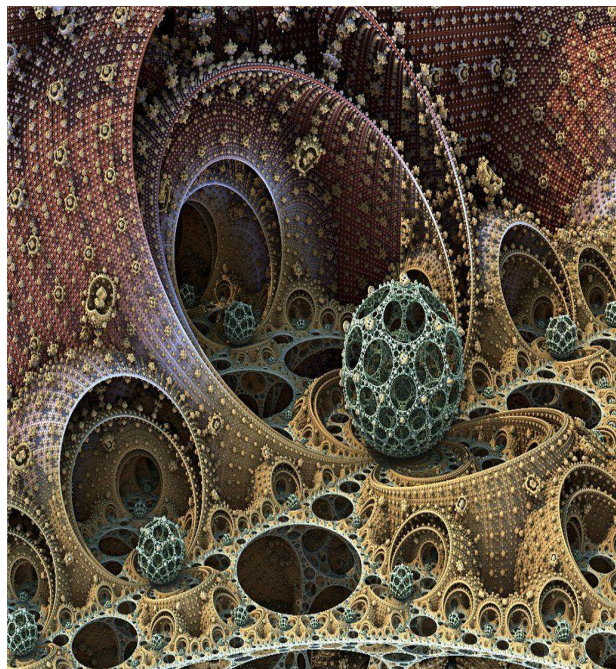
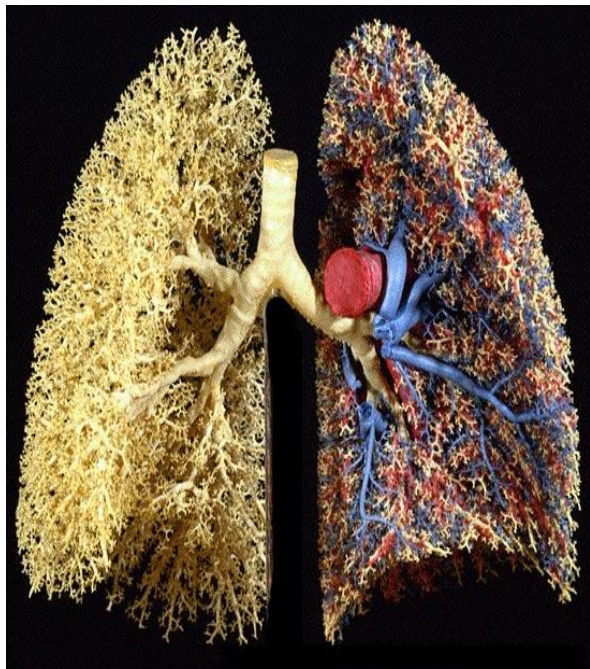
**Day1: 25 September, 2022 (Sunday)**

| <b>Inaugural Session</b>                      |   |   |
|---|---|---|
| 9:45– 9:50                                    | Welcome note by Dr. Saurabh Verma                                 |   |
| 9:50– 9:55                                    | Guest of Honour address by Prof. Tapobrata Lahiri                 |   |
| 9:55– 10:00                                   | Address by Dr. Ratan K. Saha, HoD, Department of Applied Sciences |   |
| <b>Session I</b>                              |   |   |
| <b>Chair Person:</b> Dr. Sumit Kumar Upadhyay |   |   |
| <b>Time</b>                                   | <b>Speaker</b>  | <b>Topic</b>                                    |
| 10:00 – 11:20                                 | Dr. Abdullah Bin Abu Baker, IIIT Allahabad                        | Complete metric spaces and compact sets         |
| 11:30 – 12:50                                 | Ms. Swapnil Verma, University of Delhi                            | Banach fixed point theorem and its applications |
| <b>Session II</b>                             |   |   |
| <b>Chair Person:</b> Dr. Anand Kumar Tiwari   |   |   |
| 15:00-15:50                                   | Mr. Himanshu Kumar, IIIT Allahabad                                | Tutorial-1                                      |
| 16:00-16:50                                   | Ms. Megha Pandey, IIT (BHU)                                       | Tutorial-2                                      |



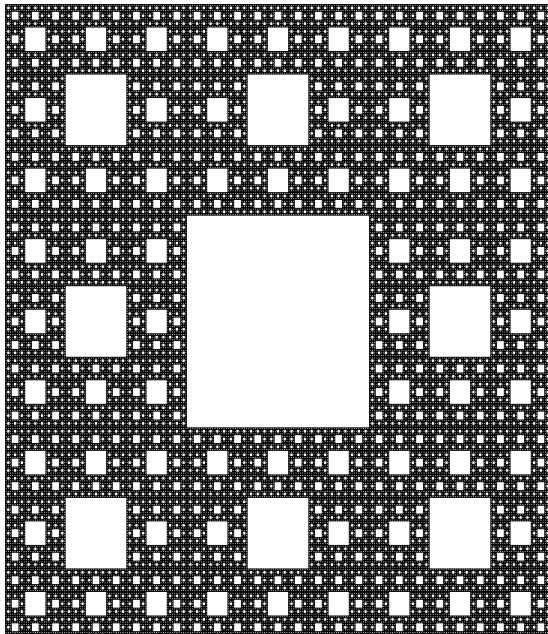
## Day2: 26 September, 2022 (Monday)

| <b>Session I</b>                        |                                   |  |
|---|-----------------------------------|--|
| <b>Chair Person:</b> Dr. Seema Kushwaha |                                   |  |
| <b>Time</b>                             | <b>Speaker</b>                    | <b>Topic</b>   |
| 10:00 – 11:20                           | Dr. Manoj Kumar, IISc<br>Banglore | Borel probability measures and<br>Monge-Kantorovich metric |
| 11:30 – 12:50                           | Dr. S. K. Katiyar, SRM            | Hausdorff metric   |
| <b>Session II</b>                       |                                   |  |
| <b>Chair Person:</b> Dr. Savitri Joshi  |                                   |  |
| 15:00-15:50                             | Mr. Manuj Verma                   | Tutorial-3   |
| 16:00-16:50                             | Ms. Megha Pandey                  | Tutorial-4   |



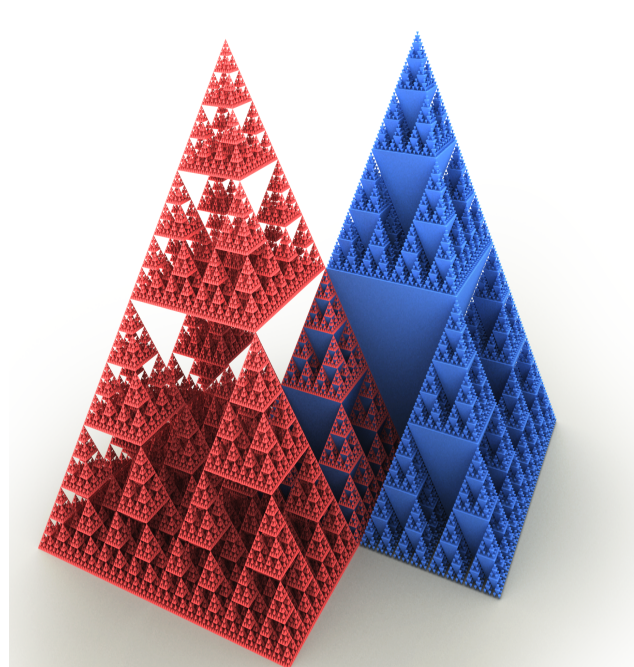
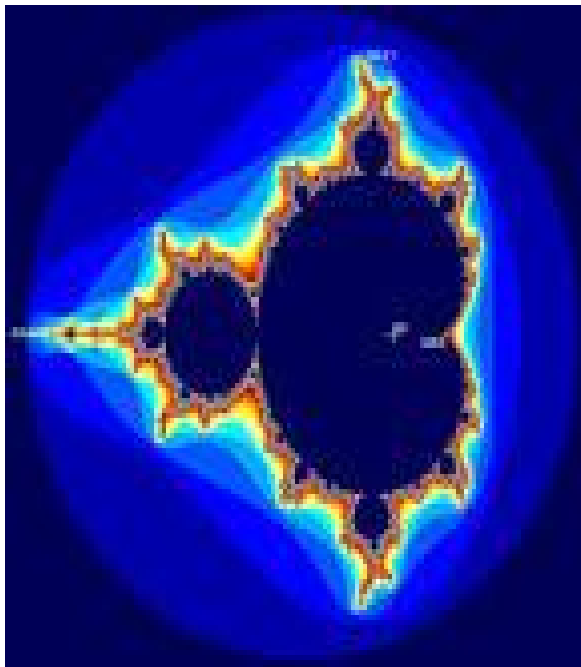
## Day3: 27 September, 2022 (Tuesday)

| <b>Session I</b>                                |                                |                                  |
|---|--------------------------------|----------------------------------|
| <b>Chair Person:</b> Dr. Abdullah Bin Abu Baker |                                |                                  |
| <b>Time</b>                                     | <b>Speaker</b>                 | <b>Topic</b>                     |
| 10:00 – 11:20                                   | Dr. S. Verma, IIIT Allahabad   | Construction of Fractal sets     |
| 11:30 – 12:50                                   | Dr. S. Verma, IIIT Allahabad   | Construction of Fractal measures |
| <b>Session II</b>                               |                                |                                  |
| <b>Chair Person:</b> Dr. Abhilash Sahu          |                                |                                  |
| 15:00-15:50                                     | Mr. Subhash Chandra, IIT Mandi | Tutorial-5                       |
| 16:00-16:50                                     | Dr. Sangita Jha, NIT Rourkela  | Fractal interpolation            |



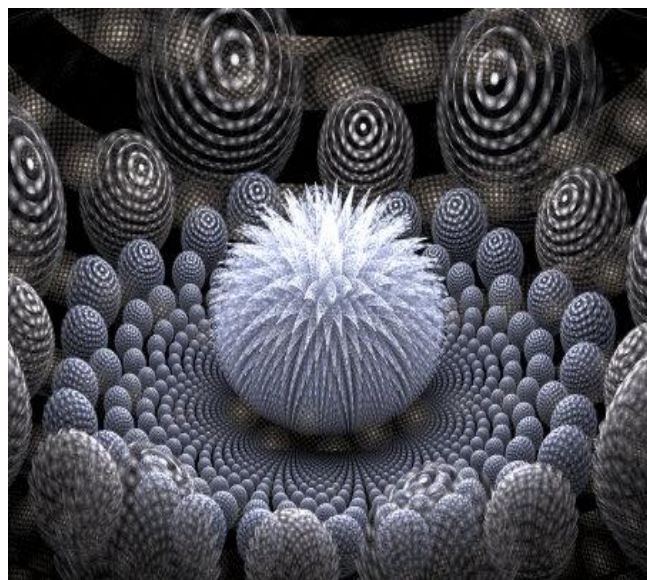
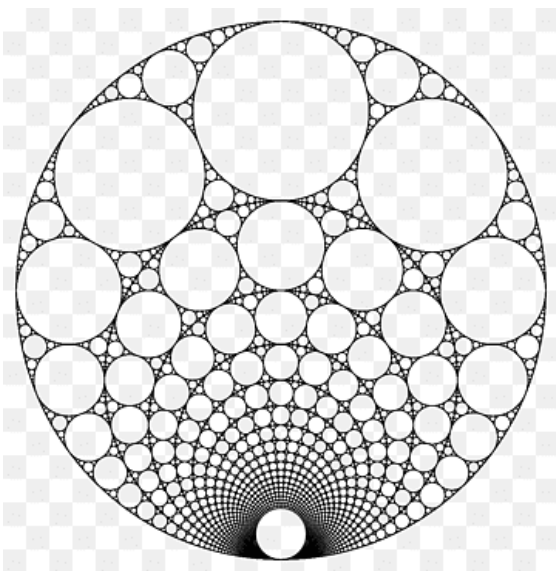
## Day4: 28 September, 2022 (Wednesday)

| <b>Session I</b>                                |   |  |
|---|---|--|
| <b>Chair Person:</b> Dr. Abdullah Bin Abu Baker |   |  |
| <b>Time</b>                                     | <b>Speaker</b>                            | <b>Topic</b>   |
| 10:00 – 11:20                                   | Dr. Amit Priyadashi,<br>IIT Delhi         | Hausdorff dimension  |
| 11:30 – 12:50                                   | Prof. Tapobrata Lahiri,<br>IIIT Allahabad | Definition of Fractal Dimension under the paradigm of physics and its application to elucidate role of a protein, spectrin to maintain structural integrity of human RBC |
| <b>Session II</b>                               |   |  |
| <b>Chair Person:</b> Dr. Manoj Kumar            |   |  |
| 15:00-15:50                                     | Mr. Subhash Chandra,<br>IIT Mandi         | Tutorial-6   |
| 16:00-16:50                                     | Mr. Manuj Verma, IIT<br>Delhi             | Tutorial-7   |



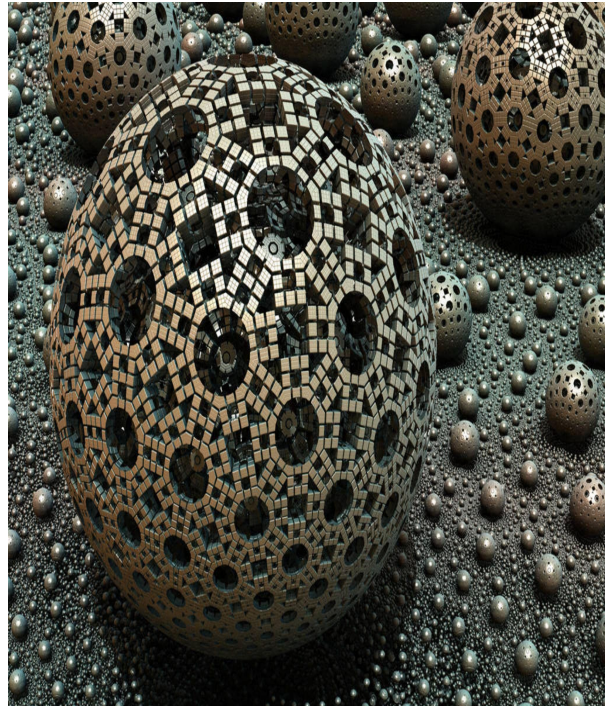
## Day5: 29 September, 2022 (Thursday)

| <b>Session I</b>                       |                                |  |
|--|--------------------------------|--|
| <b>Chair Person:</b> Dr. S. K. Katiyar |                                |  |
| <b>Time</b>                            | <b>Speaker</b>                 | <b>Topic</b>   |
| 10:00 – 11:20                          | Prof. Tanmoy Som, IIT (BHU)    | Best simultaneous approximation and invariant points |
| 11:30 – 12:50                          | Dr. Amit Priyadashi, IIT Delhi | Hausdorff dimension of self-similar sets             |
| <b>Session II</b>                      |                                |  |
| <b>Chair Person:</b> Dr. Abhilash Sahu |                                |  |
| 15:00-15:50                            | Ms. Megha Pandey, IIT (BHU)    | Tutorial-8   |
| 16:00-16:50                            | Mr. Manuj Verma, IIT Delhi     | Tutorial-9   |



## Day6: 30 September, 2022 (Friday)

| <b>Session I</b>                       |                                |                               |
|--|--------------------------------|-------------------------------|
| <b>Chair Person: Dr. Manoj Kumar</b>   |                                |                               |
| <b>Time</b>                            | <b>Speaker</b>                 | <b>Topic</b>                  |
| 10:00 – 11:20                          | Dr. S. Verma, IIIT Allahabad   | Box dimension                 |
| 11:30 – 12:50                          | Dr. Syed Abbas, IIT Mandi      | Basics of fractional calculus |
| <b>Session II</b>                      |                                |                               |
| <b>Chair Person: Ms. Swapnil Verma</b> |                                |                               |
| 15:00-15:50                            | Mr. Manuj Verma, IIT Delhi     | Tutorial-10                   |
| 16:00-16:50                            | Mr. Subhash Chandra, IIT Mandi | Tutorial-11                   |



## Day7: 01 October, 2022 (Saturday)

| <b>Session I</b>                                |  |   |
|---|--|---|
| <b>Chair Person: Ms. Swapnil Verma</b>          |  |   |
| <b>Time</b>                                     | <b>Speaker</b>                           | <b>Topic</b>  |
| 10:00 – 11:20                                   | Prof. Mrinal K. Roychowdhury, UTRGV, USA | Quantization for Probability Distributions                    |
| 11:30 – 12:50                                   | Dr. Abhilash Sahu, VIT Bhopal            | Harmonic functions and Fractal functions on Sierpinski gasket |
| <b>Session II</b>                               |  |   |
| <b>Chair Person: Dr. Abdullah Bin Abu Baker</b> |  |   |
| 15:00-15:50                                     | Ms. Megha Pandey, IIT (BHU)              | Tutorial-12   |
| 16:00-16:50                                     | Mr. Vishal Agrawal, IIT (BHU)            | Tutorial-13   |
| 16:50 - 17:00                                   | Valedictory function                     |   |

