

**THE CATHOLIC UNIVERSITY OF AMERICA**  
**Washington, DC 20064**

**SEMINAR IN FUNCTIONAL ANALYSIS  
AND RELATED AREAS**

**Wednesday, February 22, 2023**

**5:10 p.m. - 6:50 p.m. (including a coffee break)**

**SPEAKER:** Professor Paul Kainen  
Georgetown University

**TITLE:** How to build a graph

**ABSTRACT:** A construction sequence for a graph is a total order of its vertices and edges s.t. each edge follows both its endpoints. Let  $c(G)$ , the construction number, count the sequences. For a few sequences  $G_n$  we have  $c(G_n)$ , including paths, stars, and complete graphs, but the sequences are not trivial to compute. Some generalizations are described which show that in fact the problem was known 50 years ago but in a more abstract form. Applications will be discussed.

**PLACE:** Aquinas Hall, room 108. The talk will be on Zoom as well (from 5:10 p.m. to 6:50 p.m. ET). The corresponding link will be sent to everyone in advance.

**ORGANIZERS:** V. Bogdan (The Catholic University of America), P. Kainen (Georgetown University), R. Kalpathy (The Catholic University of America), and A. Levin (The Catholic University of America).

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**Web page:**

<https://mathematics.catholic.edu/faculty-and-research/mathematics-seminar/index.html>