Speaker : Wolfgang Burr

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Concepts and aims of functional interpretations: towards a functional interpretation of constructive set theory

In 1958, Gödel published his famous article "Über eine bisher noch nicht benützte Erweiterung des finiten Standpunktes" in the Swiss Journal Dialectica. There he gives an interpretation of Heyting arithmetic in a quantifier free system of primitive recursive functionals of finite type. This interpretation is rich in consequences and applications. In the following decades Gödel's interpretation has been extended to a large number of mathematical theories.

In the present talk we discuss Gödel's Dialectica interpretation with regard to problems that arise when this technique is applied to systems of set theory.