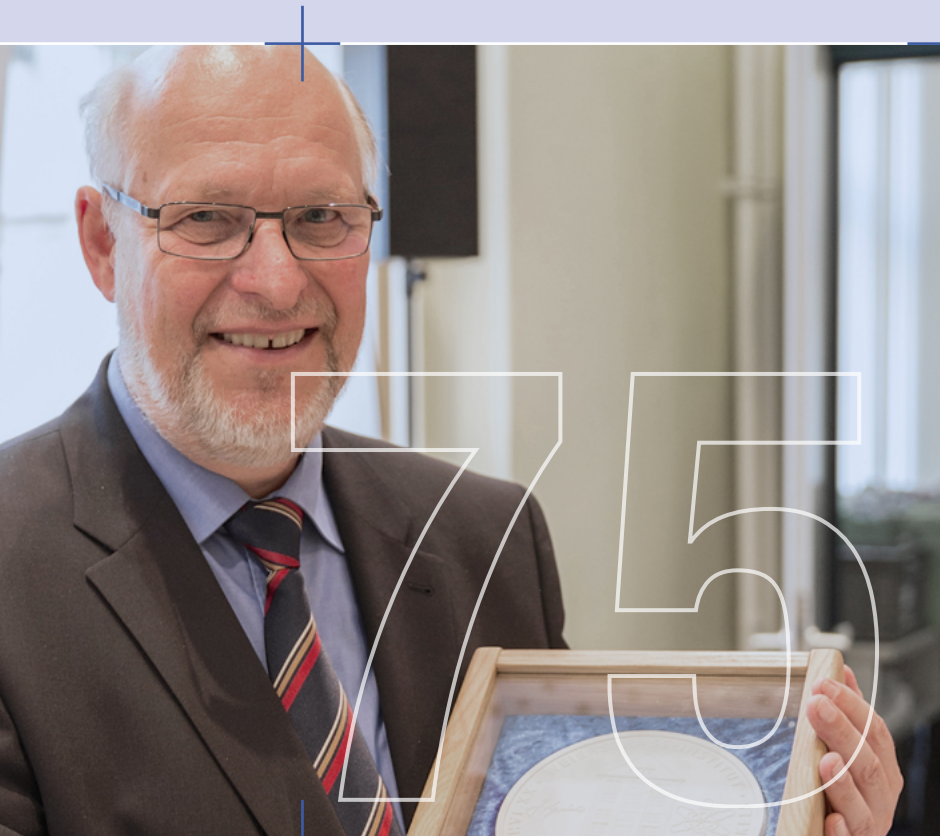


November 01, 2023, 15:15

Erhard Schmidt Lecture Room, ground floor



**Festive colloquium
on the occasion
of the 75th birthday
of Prof. Dr. Jürgen
Sprekels, former
Director of WIAS**

Langenbach Seminar

Prof. Dr. Fredi Tröltzsch:

Optimal Control of Partial Differential Equations -
Selected Results and Recent Trends

In its first part, the talk introduces to some main results of the optimal control theory for partial differential equations. In particular, first-order necessary and second-order sufficient optimality conditions for semilinear elliptic and parabolic equations are discussed. The second part addresses applications of these principles of optimal control theory to the control of some reaction-diffusion equations. Moreover, recent trends in the theory are briefly outlined.