TECHNISCHE UNIVERSITÄT
CHEMNITZ

Fakultät für Mathematik
Chemnitzer Mathematisches Colloquium

In der Reihe „Chemnitzer Mathematisches Colloquium“ der Fakultät für Mathematik der TU Chemnitz spricht

Herr Prof. Dr. Jörg Rambau (Universität Bayreuth)

über das Thema

Optimal Diplomacy.

Der Vortrag findet am

**Donnerstag, dem 2. Februar 2017, um 16.00 Uhr im Raum B202,
Reichenhainer Straße 70**

statt.

Ich möchte Sie hiermit recht herzlich zu dieser Veranstaltung einladen. Das Kolloquium wird von Herrn Prof. Christoph Helmberg geleitet.

Abstract:
Picture yourself in a committee numerically evaluating a scientific proposal that you find worth funding: A rating of “0” means “easily achievable but not at all innovative”, whereas “1” means “very innovative but totally unachievable”. In both cases, funding is not recommended. In contrast, “1/2” means “innovative and achievable”, in other words: worth funding. All intermediate values are possible. Any rating that is closer to “1/2” than to “1/4” and “3/4” is considered a vote for funding. The proposal passes if 50 funding, i.e., rate the proposal between “1/2 - 1/8” and “1/2 + 1/8”.

Now, there are 10 meetings ahead of you. You have an idea how the opinions of the committee members develop. How should your statements look like in the meetings one through ten if you want to have eventually as many supporters of the proposal as possible? This is an instance of the “Optimal Diplomacy Problem” (ODP), introduced by Hegselmann, König, Kurz, Niemann, and Rambau in 2010, published in 2015.

How do opinions interact? How is the dynamics of opinions modeled mathematically? What does it mean to “influence others” in this dynamical system? How can one compute or at least narrow down optimal diplomacies? What happens if not all informations about committee members are known to the diplomat? In this talk we will discuss recent efforts based on the arguably most influential model: the Bounded-Confidence model by Hegselmann and Krause. We thereby draw on joint work with Andreas Deuerling, Rainer Hegselmann, Stefan König, Sascha Kurz, and Christoph Niemann.

Prof. Dr. Christoph Helmberg
Dekan