NOVEMBER **222** 17:00





## Mathematik Kolloquium Innsbruck

## **Dmitriy Bilyk**

University of Minnesota

## **Points on the sphere**

We shall discuss various problems related to uniform distribution of points on the sphere and related problems. This will include many interesting topics and objects at the intersection of discrete geometry, analysis, probability, and approximation theory: low-discrepancy points, lattices, random points and jittered sampling, optimal energy points (e.g., minimizing the Riesz energy or maximizing the sum of distances), best covering and packing, cubature formulas and spherical designs, tight frames and equiangular lines. We shall also outline some relations between these topics, in particular the Stolarsky principle -- and identity, which connects optimal energy and discrepancy.

While covering many contemporary topics, the talk will be mostly accessible to master students.

Donnerstag 22. November 2018, 17:00 Uhr, HS E ab 16:30 Uhr Kaffee im Mathematikinstitut Gäste und Studierende sind herzlich willkommen!

Institut für Mathematik, Universität Innsbruck, Technikerstraße 13, 7. Stock