## Institut für Mathematische Stochastik

GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN

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To whom it may concern

Göttingen, 13. August 2001

## Letter of recommendation for Dr. Jörg Grigull

Dr. Jörg Grigull has been working as a PhD student and Researcher (wissenschaftlicher Mitarbeiter) at the Sonderforschungsbereich (SFB) "Geometrie und Analysis" of the Mathematics Faculty of Göttingen University from January 1, 1991 until October 31, 1993, when he accepted a one year post doctoral position at the Landau Center of the Hebrew University in Jerusalem to do research on large deviation problems and thermodynamic formalism. Since then he is specializing in applied stochastic problems, lately in Data Analysis: Computational Neuroscience and Statistical Genetics (Linkage Analysis).

Dr. Grigull worked in the area of Dynamical Systems, in particular, on its probabilistic and statistical foundations. He was able to obtain a better understanding for a more accurate data analysis of time series which show intermittent behavior. He has developed a complete theory for large deviation for parabolic rational functions with respect to Gibbs measures. The results from his dissertation stand as a rather unique example for maps with parabolic periodic points where a complete analogue of the classical theory of large deviation in probability has been extended to the dynamical context. His research may also be seen as basic for the understanding of iterated function systems and related mathematical models in physics, medicine and biology.

As a larger research institution the SFB had a guest program with numerous leading researchers from all over the world. Dr. Grigull's duties included the scientific administration of this program. He also participated actively in the education program of the Mathematics Faculty at Göttingen. Dr. Grigull has mastered all tasks in an excellent way. He is a loyal and reliable collegue, in particular, he showed great capacity and motivation for team work.

Dr. Grigull's work shows his ability of doing original, even unconventional, and profound mathematics. He has developed an excellent outlook on mathematics, which enables him to find interesting and important problems to work on. I enjoyed it very much to have him as a collegue. It is stimulating to discuss mathematical and other problems with him and he is always willing to do so. Knowing his attitude towards research and his scientific capability, it is quite clear that he is able to work successfully in many areas where a profound knowledge of mathematics is most helpful. By his extensive reading and his concentration on the essentials he is able to investigate complicated problems in a rather short time and to formulate issues in a very precise way and also in a larger context.

Prof. Dr. Manfred Denker