EUROPEAN SCIENCE FOUNDATION
SETTING SCIENCE AGENDAS FOR EUROPE

European Mathematical Society

ERCOM

Set theory grew out of mathematical analysis through Georg Cantor's work on sets of uniqueness of trigonometric series in the late 19th century and was soon established as the foundation of all of mathematics. Over the last century it has developed into a vibrant and important subject of its own. On the one hand, it deals with questions of mathematical logic of deep foundational importance, such as the choice of axioms for mathematics and the questions of relative consistency of mathematical theories. On the other hand, techniques of set theory are applied in many areas of mathematics such as classical analysis, general topology, measure theory, Banach space theory, abstract algebra, ergodic theory and dynamical systems.

The conference will be in honor of Ronald Jensen's lifelong achievements in set theory. Through his work, Jensen has been shaping current day set theory in an outstanding way. His seminal work in the late 60s and in the 70s on the fine structure, the covering property, and the coding capacity of the constructible hierarchy produced a completely new understanding of the set theoretical universe. But it was only a starting point for Jensen's later achievements, which led to the general theory of inner models with large cardinals, their fine structural analysis, the study of their covering properties, and the realisation that the structures of inner model theory are intimately intertwined with hypotheses from descriptive set theory. Nowadays, inner model theory is a prominent research area with its own goals but which also provides other areas of set theory with its forceful tools to bring about deep structural insights that could not have been accomplished otherwise.

The conference focuses on the following main topics:
1. Inner model theory and large cardinals
2. Descriptive set theory
3. Combinatorial set theory
4. Applications of set theory to Banach spaces, measure theory, general topology, and other neighboring areas.

Menachem Magidor will give a Special Lecture on the work of Ronald Jensen.

RESEARCH CONFERENCES

ESF Mathematics Conference in Partnership with EMS and ERCOM

Second European Set Theory Meeting: In Honor Of Ronald Jensen

Mathematical Research and Conference Center, Będlewo ▪ Poland

5-10 July 2009

$(\Diamond_\kappa)$ There is a sequence $\langle S_{\nu<\kappa}\rangle$ s.t. $S_\alpha \subseteq \alpha$ $(\alpha < \kappa)$ and for every $X \subset \kappa$, the set $\{\alpha \mid X \cap \alpha = S_\alpha\}$ is Mahlo in κ.

$(\Diamond_\kappa^+)$ There is a sequence $\langle S_{\nu<\kappa}\rangle$ s.t. $S_\alpha \subseteq \mathcal{P}(\alpha)$, $\bar{\bar{S}}_\alpha \leq \bar{\bar{\alpha}}$ $(\alpha < \kappa)$ and for every $X \subset \kappa$, the set $\{\alpha \mid X \cap \alpha = S_\alpha\}$ is Mahlo in κ.

Chair: Jouko Väänänen, *University of Helsinki, FI/University of Amsterdam, NL*
Organising Committee: Grzegorz Plebanek, *U. of Wroclaw, PL* - Ralf Schindler, *U. of Münster, DE* - Boban Velickovic, *U. of Paris VII, FR*

Invited Speakers will include

Taras Banakh, *Ivan Franko Lviv National U., UA*
Tomek Bartoszynski, *NSF, US*
James Cummings, *Carnegie Mellon U., US*
Gabriel Debs, *U. of Paris VI, FR*
Mirna Džamonja, *U. of East Anglia, UK*
Inessa Epstein, *U. of California Los Angeles, US*
Sy Friedman, *U. of Vienna, AT*
Moti Gitik, *Tel Aviv U., IL*
Ronald Jensen, *Humboldt-U. zu Berlin, DE*
István Juhász, *Alfréd Rényi Institute of Mathematics, HU*
Menachem Kojman, *Ben Gurion U. of the Negev, IL*
Menachem Magidor, *Hebrew U., IL*
Justin Moore, *Cornell U., US*
Itay Neeman, *U. of California Los Angeles, US (tbc)*

Janusz Pawlikowski, *Wroclaw U., PL*
Dilip Raghavan, *U. of Toronto, CA*
Grigor Sargsyan, *U. of California Berkeley, US*
Slawomir Solecki, *U. of Illinois at Urbana-Champaign, US*
John Steel, *U. of California Berkeley, US*
Stevo Todorcevic, *U. of Toronto, CA and U. of Paris VII, FR*
Todor Tsankov, *U. of Paris VI, FR*
Philip Welch, *U. of Bristol, UK*
Hugh Woodin, *U. of California Berkeley, US*
Jindřich Zapletal, *U. of Florida Gainsville, US*
Martin Zeman, *U. of California Irvine, US (tbc)*

Application Form & Programme available from
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Closing Date for Application **8 April 2009**

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