



## PROFESSOR ERALDO GIULI IS EIGHTY

DAVID HOLGATE AND JOSEF ŠLAPAL

Professor Eraldo Giuli, our colleague, friend and a distinguished member the editorial board of Mathematics for Applications, turned 80 years of age on 12 March 2020.

Over a long academic career at the University of L'Aquila (Italy), Eraldo Giuli has established himself as one of the foremost researchers in Categorical Topology with a reputation as a charismatic and influential figure in the research community. As his early papers show, even as a young – and fairly isolated – mathematician, he approached his topology research with the intuition and insights of category theory. This led to his association with two of the early proponents of categorical topology, Horst Herrlich (Bremen, Germany) and George Strecker (Kansas State, USA) and the publication of a number of significant papers as the research field developed.

Eraldo Giuli's earlier work was concerned with the epimorphism problem in General Topology, building in particular on the initial results of Sergio Salbany (Cape Town, South Africa). This led to an extended and fruitful period of collaboration with Dikran Dikranjan (Udine, Italy), during which they introduced and published a number of fundamental papers on categorical closure operators. They solved a range of open problems regarding epimorphisms in topological categories, and their introduction of categorical closure operators spawned a vast programme of research in categorical topology. Among Eraldo Giuli's many collaborators in this programme, two who stand out are Walter Tholen (York University, Toronto) and Maria-Manuel Clementino (Coimbra, Portugal). This decade of research culminated in the publication of two books on Categorical Closure Operators, one by Dikran Dikranjan and Walter Tholen, the other by Eraldo's former student, Gabriele Castellini.

In his later work Eraldo Giuli's principle contributions were in the theory of completions, together with Horst Herrlich and Guillaume Brümmer (Cape Town, South Africa) and related topics in affine sets. Together with Josef Šlapal (Brno, Czech Republic), he also worked on extensions of closure and convergence in categorical topology that led to the more recent programme of research in categorical neighbourhood operators.

Eraldo Giuli's mathematical research and broad network of collaborators contributed to the growth of the Department of Pure and Applied Mathematics at the University of L'Aquila in the 1980's and 1990's. Together with his colleague Anna Tozzi, he organised two significant meetings of categorical topologists in L'Aquila in 1986 and 1994. The volumes of research from these meetings guided the research field for many years and made L'Aquila a hub for many of Eraldo Giuli's collaborators.

The collaboration of Eraldo Giuli with Brno University of Technology (BUT) was initiated by his hosting of Josef Šlapal as a research scholar at the University of L'Aquila in 2002. This collaboration and Anna Tozzi's position as the university vice-rector responsible for international relations led to the formation of an ongoing partnership between BUT and the University of L'Aquila. Since 2008, an international master's study programme Applied and Interdisciplinary Mathematics (formerly Mathematical Modeling in Engineering) has been successfully run.



Eraldo Giuli in Thailand in 2003 when participating in a conference held in Bangkok.

It was also Josef Šlapal who witnessed Eraldo Giuli's falling in love with Thailand when both of them visited the country in 2003 to participate in a mathematical conference held in Bangkok. Since then, Eraldo Giuli has been visiting Thailand nearly every year for a holiday with some of his family members (always including his friendly wife Ambra). But he was also working there as a university visiting professor for a period.

Now, in his retirement, Eraldo Giuli has more time to enjoy working on his small farm in the hills above Roseto on the Adriatic coast. He has always been generous in sharing his mathematical insights, and he likes collaboration. Eraldo Giuli still receives mathematical colleagues at his farm and continues to share mathematical ideas together with his home made olive oil and wine. And he also goes on to serve on editorial boards of several mathematical journals including Mathematics for Applications.

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