

Достижения научной лаборатории под руководством Лиокумовича Л.Б. высоко оценили в монографии по распределенным волоконно-оптическим датчикам

**Arthur H. Hartog**

AN INTRODUCTION TO  
**DISTRIBUTED OPTICAL  
FIBRE SENSORS**



Ученых научной лаборатории под руководством Лиокумовича Л.Б. (Высшая школа прикладной физики и космических технологий ИФНиТ) высоко оценил в своей монографии всемирно известный специалист по распределенным волоконно-оптическим датчикам Артур Х. Хартог.

В книге Артура Хартога «An Introduction to Distributed Optical Fibre Sensors», изданной в 2017 г., автор выражает благодарность сотрудникам коллектива лаборатории: Леониду Борисовичу Лиокумовичу, Олегу Ивановичу Котову, Андрею Викторовичу Медведеву, Николаю Ушакову и Артему Хлыбову за многолетний совместный труд и научные консультации по передовым тематикам в области распределённых оптических датчиков.

Peter Travis, Peter Wait and Val Williams amongst those who contributed in one way or another to the success of this technology. As the ownership of York Sensors moved to Sensor Highway, George Brown, Nigel Leggett and Glyn Williams were instrumental in moving the technology to the oilfield, ultimately within Schlumberger. In more recent years, I have also had the pleasure of working at the Schlumberger Fibre-Optic Technology Centre with a number of colleagues, including Dom Brady, Yuehua Chen, Alexis Constantinou, Matt Craig, Theo Cuny, Tim Dean, Florian Englich, Alireza Farahani, Max Hadley, Will Hawthorne, Graeme Hilton, Ian Hilton, Kamal Kader, Gareth Lees, Adam Stanbridge, Paul Stopford and many others (some of whom were previously at York Sensors). The initial demonstrations of oil-field applications of distributed vibration sensors were greatly facilitated by collaboration with colleagues within Schlumberger, including William Allard, Mike Clarke, Richard Coates, Bernard Frignet, Duncan Mackie, Doug Miller and Merrick Walford and many colleagues at the Schlumberger Gould Research Centre (Cambridge, United Kingdom), Schlumberger Doll Research Centre (Cambridge, Massachusetts, USA) and the Schlumberger Moscow Research Centre.

The development of distributed temperature sensor (DTS) technology at York Sensors was considerably assisted by the close collaboration with our then Japanese partners, initially part of Nippon Mining and later becoming Y.O. Systems and now YK Gikken. The support and friendship of their founder Osamu Yasuda (now deceased) and of Shunsuke Kubota is an enduring contribution to the field.

I have the great pleasure of working with a team at the Peter the Great St. Petersburg Polytechnical University led initially by Oleg I. Kotov and now by Leonid Liokumovich together with their colleagues Andrey Medvedev, Nikolai Ushakov, Artem Khlybov and (at St Petersburg State University) Mikhail Bisyarin. Their contributions, spanning more than 10 years, to Raman distributed sensing and more recently to distributed vibration sensing are greatly appreciated as is their continuing collaboration on new topics. Other aspects of my understanding of the subject were enhanced by collaborations with Trevor Newson and his students at Southampton University, particularly Yuh Tat Cho, Mohammad Belal and Mohamed Alahbabi. More recently, I have appreciated the support of Dimitris Syvridis and his colleagues at the National and Kapodistrian University of Athens, Greece, and I have also enjoyed a fruitful collaboration with Daniela Donna (Ecole des Mines – Paritech) and James Martin (then at the Institut de Physique du Globe de Paris).

Although this work is a personal project, I am happy to acknowledge the support and encouragement of Simon Bittleston (Schlumberger Vice President, Research) and Frédérique Kalb (then Centre Manager at the Schlumberger Fibre-Optic Technology Centre). I am also keen to recognise the assistance of the Schlumberger librarians, particularly Clare Aitken and Jacqui Wright, in finding a number of obscure references.

A special word of thanks is due to my friends and colleagues Will Hawthorne, Dom Brady, George Brown, Alexis Constantinou and Paul Dickenson, as well as to Jennifer Hartog, for their comments on various parts of the manuscript.

Finally, and most importantly, I want to thank my wife, Christine Maltby, in addition to her careful proofreading of the manuscript, for her unwavering and unquestioning support, love and patience for the several years that I have hidden away working on this project and for our many happy years together.

*Arthur H. Hartog*  
*Martyr Worthy, Winchester, United Kingdom*

Монография Артура Хартога дает широкий обзор по методам создания распределенных волоконно-оптических датчиков, областям их применения, современным трендам развития данного направления измерительных систем. Книга является первым изданием, в котором собрана детальная информация по распределенным волоконно-оптическим датчикам и предназначена для специалистов по оптическим измерениям.



Автор монографии Артур Хартог — известный в мире специалист по распределенным волоконным датчикам — представляет компанию Schlumberger, которая много лет сотрудничает с СПбПУ в рамках научных проектов по направлению волоконно-оптических измерений.

Высокую оценку сотрудничества со специалистами ВШПФИКТ и их вклад в развитие технологии распределенных датчиков температуры и измерителей вибраций автор отметил именными подписями на обложках подаренных нашим сотрудникам экземпляров книг.

