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北京大学

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中国石油天然气股份有限公司  
PetroChina Company Limited

中国石油化工股份有限公司  
CHINA PETROLEUM & CHEMICAL CORPORATION

中国海洋石油总公司  
CHINA NATIONAL OFFSHORE OIL CORP.

何川 研究员

上传中...

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#### 主要研究方向:

- ◆ 以三维地震建模/偏移及油藏数值模拟为主要应用方向的大规模数值计算方法和技术
- ◆ 迭代法和预处理法快速求解特定应用所产生的线性/非线性方程组
- ◆ 大规模科学与工程计算中的并行处理算法
- ◆ 基于硬件加速引擎 (CELL, GPGPU, FPGA) 的高性能计算机架构下的数值模拟方法、算法设计及其在石油勘探开发领域的应用
- ◆ 系统可重构 (Hardware Reconfigurable) 计算机的体系结构设计及实现
- ◆ 用于石油工程领域的新型测试、测量、监测、诊断方法和工具，及与之结合的海量数据处理、数据融合技术

#### 教育及工作经历:

2002/09 ~ 2007/05:

美国德州A&M大学(Texas A&M University)电子工程系计算机工程专业,  
博士学位

1998/04 ~ 2002/05:

北京航空航天大学电子工程系 讲师

1995/09 ~ 1998/03:

北京航空航天大学电子工程系导航与测控专业，硕士学位

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山东大学计算机工程系 第二专业证书

代表性成果：

- ◆ Chuan He, Guan Qin, Mi Lu, Wei Zhao, “FPGA-based Accurate Floating-Point Summation and Applications”, Submitted to IEEE Transactions Computers
- ◆ Chuan He, Guan Qin, Mi Lu, Wei Zhao, “Optimized High-order Finite Difference Wave Equations Modeling On Reconfigurable Computing Platform,” Journal of Microprocessors and Microsystems, 2009
- ◆ Li Sun, Chuan He, Qishan Zhang, “GPS Spread Spectrum Signal Code Sequential Searching Algorithm Research,” Journal of Beijing University of Aeronautics and Astronautics (BUAA), 1999
- ◆ Li Sun, Chuan He, Qishan Zhang, “GPS Receiver RF Front-end Circuit Design,” Application of Electronic Technique, 1998
- ◆ Chuan He, Guan Qin, Wei Zhao, and Richard E. Ewing, “High-Precision BLAS on FPGA-enhanced Computers”, The International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA), June, 2007
- ◆ Chuan He, Guan Qin, Mi Lu, Wei Zhao, “An Efficient Implementation of High-Accuracy Finite Difference Computing Engine on FPGAs”, The IEEE 17th International Conference on Application-specific Systems, Architectures and Processors (ASAP), 2006
- ◆ Chuan He, Guan Qin, Mi Lu, Wei Zhao, “An Optimized Finite Difference Computing Engine on FPGAs”, The 14th Annual IEEE Symposium on Field-Programmable Custom Computing Machines (FCCM), 2006
- ◆ Chuan He, Guan Qin, Mi Lu, and Wei Zhao, “Accurate Floating-Point Summation with Group-Alignment Technique on FPGAs ,” The International Conference on Engineering of Reconfigurable Systems and Algorithms (ERSA), 2006
- ◆ Chuan He, Guan Qin, and Wei Zhao, “High-order Finite Difference Modeling on Reconfigurable Computing Platform,” SEG 2005 International Exposition and 75th Annual Meeting, November, 2005
- ◆ Chuan He, Chuanwen Sun, Mi Lu, and Wei Zhao, “Prestack Kirchhoff Time Migration on High Performance Reconfigurable Computing Platform,” SEG 2005 International Exposition and 75th Annual Meeting, November, 2005
- ◆ Chuan He, Wei Zhao, and Mi Lu, “Time Domain Numerical Simulation for Transient Waves on Reconfigurable Coprocessor Platform,” The 13th Annual IEEE Symposium on Field-Programmable Custom Computing Machines (FCCM), April 2005
- ◆ Chuan He, Wei Zhao, and Mi Lu, “FPGA-Based High-Order Finite Difference Algorithm for 2D Acoustic Wave Propagation Problems,” International Conference on Engineering of

- ◆ Chuan He, Mi Lu, and Chuanwen Sun, “Accelerating Seismic Migration Using FPGA-Based Coprocessor Platform,” The 12th Annual IEEE Symposium on Field-Programmable Custom Computing Machines (FCCM), April 2004
  
- ◆ Li Sun, Chuan He, Qishan Zhang, “Modular Design for 12 Channel Navigation GPS Receiver,” International Symposium on Satellite Communication and Remote Sensing (SCRS), Xi’ an, China, 1997

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