### Dr. Patrick Häner<sup>in</sup>

#### **Particulars**

Nationality: Swiss

e-mail: contact@haenerconsulting.com

Telephone (CH): +41 44 585 27 87 Telephone (DE): +49 30 6920 87 08 Mobile (UK): +44 7882 227677

Home page: www.haenerconsulting.com

## Core Competencies

Main focus is to help financial institutions to

- fulfill regulatory requirements like Basel III and FRTB in a cost-efficient way
- optimize regulatory capital

This is achieved by providing to the client end-to-end services including

- Quantitative Analysis
  - Model validation and model control: implementing best practices, fulfilling regulatory requirements for Market and Credit Risk, hands-on benchmarking
  - Design and implementation of core analytics for credit exposure systems: all stages of development lifecyle from mathematical definition to integration into production
- Implementation of Systems and Processes
  - Project management as well and hands-on contribution through whole lifecycle from defining architecture to roll-out into production of risk systems
  - Definition and implementation of processes, which are compliant with regulatory requirements such as IMM and FRTB.
  - Documentation and presentation to regulators of fulfilled regulatory requirements.

# Computer Languages/Systems

- Used in production systems: C#, Scala/Akka, Java
- For prototyping: Python (Pandas, Numpy), F#, Mathematica, Matlab, R
- Infrastructure: Kubernetes, Proxmox, Postgres, NATS
- Development process: Git, Tekton, Jira, JUnit, NUnit
- Third party: Murex, Sungard Adaptiv Analytics Extensibility Framework

### Work Experience



Owner, Häner Consulting

- For a global French bank extend Market Risk VaR and IRC models to cover defaulted and distressed obligors
- Help bulge bracket US investment bank to fulfill regulatory requirements for IMM
- Developed for US bank the ICAAP model for Credit Risk; performed model validation for their ICAAP model for Operational Risk
- Proof of concept for an agent based, event-driven risk management system at a Nordic investment bank
- Help major Nordic financial institution to fulfill regulatory requirements and optimize regulatory capital for both Market and Credit Risk.
- Giving courses for model validation, credit exposure and Basel 3 in London, Frankfurt, Singapore, São Paulo, Johannesburg
- Defined and implemented back-testing methodology for IMM at Standard Bank London and Johannesburg using C#, IronPython, R, Sungard libraries and Microsoft SQL
- Consulting for planning of IMM application programme, in particular gap analysis and resource allocation at Nordea Copenhagen; Quantitative advice for backtesting approach
- Consulting at large UK investment bank for IMM models; prototyping in C#, F# and Matlab; proof of concept for backtesting infrastructure using CouchDB and .Net

**NOMURA** Apr 2006–July 2009

Director, Global Head Counterparty Credit Exposure Analytics at Nomura London

- Built up a new credit exposure group consisting of team of quants and developers
- Responsible for defining and implementing credit exposure methodologies
- Built grid based system for IMM compliant exposure estimations
- Contributing to IMM application and discussions with FSA



July 2004–Apr 2006

Executive Director in the Derivative Analysis group at Goldman Sachs London

- Benchmarking and model review credit derivatives
- Spearheading new model control framework

**UBS** 2001–July 2004

Global Head Quantitative Risk Methods and Statistics (QRMS) Fixed Income/Credit Derivatives at UBS London

- Model validation for credit derivatives libraries and systems
- Trade approvals for credit derivatives
- Exposure calculation for exotic trades across all Product lines

1999-2000

Co-head QRMS representation UBS Chicago

- Built up QRMS representation at UBS O'Connor in Chicago
- Responsible for equity models and QRMS IT

1996-1999

Member of QRMS at UBS Zurich

Implemented benchmark models for ex-

Implemented benchmark models for exotic equity derivatives: extensive experience of PDE, tree and Monte Carlo pricing methods.

# Education

OLD	1-UN	12.
CAN' A		TAY.
->	X	K
$\stackrel{\times}{\rightarrow}$	X	Ř
В	U N A S I	l E L

1995	Research assistant at the Institute of Theoretical Physics of the Humboldt-University of Berlin
1993–1994	Research assistant at the Institute of Theoretical

1993–1994	Research assistant at the Institute of Theoretical Physics Basel
November 1993	Doctoral thesis: "Some Investigations on the Sand-Pile Model"
1989–1993	PhD studies in Theoretical Physics at the University of Basel
1983–1988	Studies in Physics and Philosophy at the University of Basel