### Dr. Patrick Häner<sup>in</sup>

#### **Particulars**

Nationality: Swiss

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## 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#, Julia, Mathematica, Matlab, R
- Infrastructure: Kubernetes, Proxmox, Postgres, NATS
- Development process: Git, Drone, Jira, J/NUnit
- Third party: Murex, Sungard Adaptiv Analytics Extensibility Framework

### Work Experience



Sep 2022-

Contractor, Quantitative Analyst

• Implement and productionize analytics for risk management system in C# for a global French bank



Nov 2021-Sep 2022

Quantitative Developer, Coremont Digital

Front office credit and crypto quantitative developer



Aug 2009-

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



 $2001\text{-July}\ 2004$ 

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

# Education

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

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