

Frm Study Material 2013 Latest Edition

frm study material 2013 has been a vital resource for aspiring finance professionals preparing for the Foundation and Executive levels of the Financial Risk Manager (FRM) certification. Since its inception, the FRM curriculum has evolved, but the 2013 study materials remain a valuable reference for understanding core concepts, especially for candidates who appeared for exams during that period or those revisiting past curricula. This comprehensive guide aims to explore the key aspects of the 2013 FRM study material, highlighting its structure, core topics, and how candidates can effectively utilize it for exam preparation.

Understanding the FRM 2013 Study Material

The FRM study material from 2013 was designed by GARP (Global Association of Risk Professionals) to cover a broad spectrum of topics related to financial risk management. It is divided into two main levels:

Level I: Fundamentals of Risk Management

This level emphasizes the basic concepts, tools, and techniques used in risk management. The 2013 material covers fundamental topics such as quantitative analysis, financial markets and products, and the foundations of risk management.

Level II: Risk Management and Quantitative Analysis

Building on Level I, the 2013 curriculum delves deeper into quantitative tools, market risk, credit risk, operational risk, and the application of advanced risk models.

Core Topics Covered in the 2013 Study Material

The 2013 FRM study material is comprehensive, addressing various critical areas of risk management. Here is an overview of the core topics covered:

1. Foundations of Risk Management

- Types of financial risks: market, credit, operational, liquidity, and legal risks.
- Risk management frameworks and processes.
- The role of risk managers and governance.

2. Quantitative Analysis

- Time value of money and discounting techniques.
- Probability distributions and statistical measures.
- Hypothesis testing and regression analysis.
- Value at Risk (VaR) and stress testing.

3. Financial Markets and Products

- Equity, fixed income, derivatives, and alternative investments.
- Derivative instruments: options, futures, swaps, and forwards.
- Pricing models and valuation techniques.

4. Market Risk Measurement and Management

- Market risk factors and sensitivities.
- VaR models: parametric, historical simulation, Monte Carlo simulation.
- Backtesting and model validation.

5. Credit Risk Measurement and Management

- Credit risk models, including CreditMetrics and CreditRisk+.
- Credit spreads and credit default swaps.
- Probability of default (PD), loss given default (LGD), and exposure at default (EAD).

6. Operational Risk

- Types of operational risk.
- Loss data collection and analysis.
- Key risk indicators (KRIs) and risk mitigation strategies.

7. Current Issues in Risk Management

- Regulatory environment post-2008 financial crisis.
- Basel Accords and capital adequacy requirements.

- Emerging risks and technological advancements.

Utilizing the 2013 Study Material Effectively

To maximize the benefits of the 2013 study material, candidates should adopt a strategic approach:

1. Familiarize with the Syllabus

- Review the official syllabus to understand the scope.
- Focus on core learning objectives per topic.

2. Develop a Study Plan

- Allocate sufficient time to each section based on difficulty.
- Incorporate revision and practice exams into the schedule.

3. Deep Dive into Core Concepts

- Use the study material to understand fundamental theories and models.
- Practice calculations related to VaR, credit risk metrics, and derivative pricing.

4. Practice Past Exam Questions

- Solve previous years' questions to understand exam patterns.
- Analyze mistakes and revisit weak areas.

5. Supplement with Additional Resources

- Refer to online tutorials, forums, and study groups.
- Use practice questions and mock exams for assessment.

Key Benefits and Limitations of the 2013 Study Material

Benefits

- Provides a structured foundation aligned with the 2013 curriculum.
- Includes detailed explanations and examples.
- Helps build confidence through practice questions.

Limitations

- Curriculum updates post-2013 may have introduced new topics.
- Some models and regulations may have evolved since then.
- Not suitable as the primary resource for current exam sittings without supplementation.

Where to Find 2013 FRM Study Material

Candidates seeking the 2013 study material can explore various sources:

- Official GARP Resources: Archives of past curriculum and sample questions.
- Online Forums and Communities: Platforms like AnalystForum or Reddit's r/FRM often share old materials.
- Third-party Providers: Some coaching institutes and prep providers may retain or distribute past study guides.
- Libraries and Educational Portals: University libraries or financial education sites may host older editions.

Conclusion

The **FRM study material 2013** remains an essential resource for understanding the foundational principles of risk management, especially for those revisiting past exam formats or studying historical curricula. While newer editions incorporate updates reflecting regulatory changes and evolving market dynamics, the core concepts covered in 2013 continue to underpin the practice of risk management today. Aspiring FRM professionals should combine this material with current resources, practice questions, and mock exams to ensure comprehensive preparation. By leveraging these resources effectively, candidates can enhance their understanding, build confidence, and improve their chances of success in the FRM certification exams.

FRM Study Material 2013: An In-Depth Review

The FRM Study Material 2013 remains a significant resource for aspiring risk management professionals preparing for the Financial Risk Manager (FRM) exam. Although over a decade has passed since its publication, many candidates still find this material valuable due to its comprehensive coverage and structured approach. This review will delve into the features,

strengths, limitations, and overall usefulness of the 2013 edition of FRM study material, providing insights to help prospective candidates decide whether it suits their preparation needs.

Overview of FRM Study Material 2013

The 2013 edition of the FRM study material was developed by leading accreditation bodies and subject matter experts to align with the exam syllabus requirements of that period. It covers all core topics necessary for passing the FRM Part I and Part II exams, including quantitative analysis, foundational risk management concepts, and specialized areas like market risk, credit risk, operational risk, and current industry practices.

The material is typically organized into modules or chapters corresponding to the FRM curriculum, often accompanied by practice questions, mock exams, and detailed explanations. Its primary goal is to facilitate a clear understanding of complex risk concepts through structured content and illustrative examples.

Content Coverage and Structure

Comprehensive Topic Coverage

The 2013 study material provides an extensive overview of the FRM syllabus, including:

- Quantitative Analysis: Time value of money, probability distributions, statistical measures, regression analysis, and hypothesis testing.
- Foundations of Risk Management: Risk types, measurement, and management frameworks.
- Market and Credit Risk: Models, valuation techniques, and regulatory considerations.
- Operational and Integrated Risk Management: Operational risk measurement, loss data analysis, and enterprise risk management.
- Current Industry Practices: Basel Accords, risk modeling, and emerging trends in risk management.

Features:

- Detailed explanations of complex quantitative concepts.
- Use of real-world examples and case studies from 2013 industry scenarios.
- Emphasis on understanding underlying principles rather than rote memorization.

Limitations:

- Some content may be outdated given the rapid evolution of risk management practices post-2013.
- Certain regulatory frameworks (e.g., Basel III) have been updated since then, requiring supplementary study.

Organization and Readability

The material is logically structured, starting with fundamental concepts before progressing to advanced topics. Each chapter includes learning objectives, summaries, and practice questions, enabling self-assessment.

Pros:

- Clear chapter divisions facilitate targeted study.
- Visual aids like charts, graphs, and tables enhance understanding.
- End-of-chapter questions reinforce learning.

Cons:

- Dense content can be overwhelming for beginners.
- Some explanations might lack depth for advanced learners seeking rigorous mathematical derivations.

Strengths of the FRM Study Material 2013

- **Depth of Content:** The material offers a thorough understanding of core risk management topics, essential for both exam success and practical application.
- **Structured Approach:** Its logical flow allows learners to build knowledge incrementally.
- **Practice Questions:** The inclusion of numerous questions with solutions helps in self-evaluation.
- **Industry-Relevant Examples:** Case studies from the 2013 era provide context and real-world relevance.
- **Mathematical Rigor:** The material emphasizes quantitative analysis, which is crucial for the exam and professional competence.

Limitations and Challenges

- **Outdated Regulatory Frameworks:** Given the fast-changing landscape of financial regulation,

some content related to Basel Accords or other regulations may no longer be current.

- Lack of Digital Resources: Compared to modern online platforms, the 2013 material may lack interactive features or multimedia content.
- Volume of Material: The extensive coverage can be daunting for those with limited study time.
- Potential Gaps: Some topics, especially recent developments like climate risk or FinTech, are absent due to the publication date.

Comparison with Modern Study Resources

While the 2013 study material is detailed, newer editions and digital platforms have introduced features such as interactive quizzes, video lectures, and adaptive learning paths. These enhancements make modern resources more engaging and tailored to individual learning paces.

Advantages of newer resources over 2013 material:

- Updated content reflecting recent regulatory changes.
- Interactive and multimedia-based learning aids.
- Access to online forums and expert support.

However, the foundational concepts and quantitative techniques covered in the 2013 material remain relevant, making it a valuable resource when supplemented with modern updates.

Who Should Use the FRM Study Material 2013?

The 2013 edition is particularly suitable for:

- Candidates who prefer printed or static study guides.
- Those seeking a comprehensive understanding of fundamental risk concepts.
- Candidates with basic quantitative skills aiming to strengthen their conceptual clarity.
- Learners on a budget, as older editions are often more affordable.

Note: Candidates should consider supplementing this material with recent updates, especially for regulatory and industry practice sections.

Tips for Effective Use of the 2013 Study Material

- Combine with Practice: Use practice exams and question banks to test understanding.
- Update Regulatory Content: Cross-reference with current Basel and other regulatory

frameworks.

- Focus on Core Concepts: Prioritize understanding over memorization.
- Create Summaries: Build concise notes for quick revision.
- Engage in Peer Discussions: Join study groups to clarify doubts and share insights.

Conclusion

The FRM Study Material 2013 offers a solid foundation for risk management aspirants, especially those who value depth and structured learning. While some content may be outdated in today's context, the core principles and quantitative techniques remain highly relevant. When used in conjunction with updated materials and current industry data, it can be an effective component of a comprehensive exam preparation strategy.

Candidates should approach this resource as a foundational guide, supplementing it with recent developments, practice exams, and digital learning tools to maximize their chances of success in the FRM examinations and their subsequent careers in risk management.

Question What are the main topics covered in the FRM Study Material 2013? The FRM Study Material 2013 covers key areas such as Foundations of Risk Management, Quantitative Analysis, Financial Markets and Products, Valuation and Risk Models, and Current Issues in Financial Markets. **Answer** How can I effectively utilize the FRM Study Material 2013 for exam preparation? Begin by reviewing the syllabus and topics outlined in the 2013 material, create a study plan, focus on understanding concepts thoroughly, practice past exam questions, and regularly revise to reinforce learning. Are there any significant updates or changes in the FRM curriculum after 2013 that I should be aware of? Yes, the FRM curriculum has been updated multiple times since 2013 to include new financial instruments, regulatory changes, and evolving risk management practices. It's recommended to refer to the latest curriculum for current exam requirements. Where can I access the official FRM Study Material 2013? The official FRM Study Material 2013 can typically be obtained through the Global Association of Risk Professionals (GARP) website or authorized study providers that offer past exam materials. Is the FRM Study Material 2013 still relevant for current exam preparation? While the core principles remain relevant, some content from 2013 may be outdated due to industry developments. It's advisable to supplement the 2013 material with the latest resources to ensure comprehensive preparation. What are the common challenges students face with the FRM Study Material 2013, and how can they overcome them? Students often find the material complex and dense. To overcome this, break down topics into smaller sections, use additional explanatory resources, join study groups, and practice mock exams to build confidence and understanding.

Related keywords: FRM study material 2013, Financial Risk Management 2013, FRM Part 1 2013, FRM Part 2 2013, FRM syllabus 2013, FRM exam preparation 2013, FRM study guide 2013, FRM curriculum 2013, FRM books 2013, FRM previous papers 2013

Gk question and answers 2013

gk question and answers 2013

In the realm of general knowledge, staying updated with questions and answers from past years is essential for competitive exams, quizzes, and enhancing overall awareness. The year 2013 was significant in shaping various global and national events, and many questions from that year continue to be relevant for aspirants preparing for various exams. This article provides a comprehensive compilation of GK questions and answers from 2013, covering topics ranging from politics and history to science and sports, ensuring you are well-prepared to test your knowledge or prepare for future examinations.

Introduction to GK Questions and Answers 2013

General Knowledge (GK) is a vital component of competitive exams such as UPSC, SSC, banking exams, and school-level tests. Questions from 2013 reflect the political, economic, scientific, and cultural developments of that period. Familiarity with these questions helps aspirants understand the types of questions asked and the areas where they need to focus their studies.

In 2013, several landmark events took place worldwide and in India. These events have been frequently asked in various exams, making it necessary to revise and memorize key facts. The following sections provide a detailed overview of important GK questions from 2013, categorized for easy understanding.

Political and International GK Questions of 2013

Major Political Events

- Question: Who became the Prime Minister of India after the 2013 general elections?

Answer: Narendra Modi

- Question: Which country hosted the G20 Summit in 2013?

Answer: Russia (St. Petersburg)

- Question: Who was the President of the United States in 2013?

Answer: Barack Obama

International Organizations and Leaders

- Question: Who was the Secretary-General of the United Nations in 2013?

Answer: Ban Ki-moon

- Question: Which country held the BRICS Summit in 2013?

Answer: South Africa

Important Political Events in India (2013)

- Question: Which Indian state experienced a significant political change in 2013 with the formation of a new government?

Answer: Andhra Pradesh (Reorganization into Telangana)

- Question: Name the President of India in 2013.

Answer: Pranab Mukherjee

Economics and Financial GK Questions 2013

- Question: What was India's GDP growth rate approximately in 2013?

Answer: Around 5.0%

- Question: Which major Indian bank announced the launch of the first mobile banking app in 2013?

Answer: State Bank of India (SBI)

- Question: What was the international price of gold per ounce in 2013?

Answer: Approximately \$1,200 to \$1,400 (varied throughout the year)

Science and Technology GK Questions 2013

Space and Astronomy

- Question: Which planet's mission was launched by NASA in 2013?

Answer: Mars Rover (Curiosity) continued its mission, and NASA launched the MAVEN spacecraft to study Mars' atmosphere.

- Question: What is the name of the satellite launched by India in 2013?

Answer: Mars Orbiter Mission (Mangalyaan)

Innovations and Discoveries

- Question: Which breakthrough in medical science was announced in 2013 involving gene editing?

Answer: Advancements in CRISPR gene-editing technology gained worldwide attention.

- Question: What significant discovery was made in 2013 related to the Higgs boson?

Answer: Confirmation of the Higgs boson particle's properties by CERN scientists.

Sports GK Questions from 2013

- Question: Who won the ICC Cricket World Cup in 2013?

Answer: India won the ICC Champions Trophy (not the World Cup) in 2013.

- Question: Which athlete set a new world record in the 100 meters sprint in 2013?

Answer: Usain Bolt

- Question: Who was the captain of the Indian cricket team during the 2013 Champions Trophy?

Answer: Mahendra Singh Dhoni

Important Awards and Honors of 2013

- Question: Who received the Nobel Peace Prize in 2013?

Answer: Organisation for the Prohibition of Chemical Weapons (OPCW)

- Question: Which Indian was awarded the Padma Vibhushan in 2013?

Answer: Several individuals received the award, including Dr. A.P.J. Abdul Kalam (posthumously) and others across various fields.

World and Cultural GK Questions of 2013

Notable Events and Festivals

- Question: Which city hosted the 2013 G20 Summit?

Answer: St. Petersburg, Russia

- Question: Which major festival was celebrated globally in 2013?

Answer: The 150th anniversary of Mahatma Gandhi's birth was commemorated worldwide.

Books, Films, and Literature

- Question: Which film won the Academy Award for Best Picture in 2013?

Answer: "Argo"

- Question: Name the Nobel Prize-winning author who published a notable work in 2013.

Answer: Alice Munro received the Nobel Prize in Literature in 2013.

Environmental and Geographical GK Questions 2013

- Question: Which natural disaster caused widespread devastation in the Philippines in 2013?

Answer: Typhoon Haiyan (Yolanda)

- Question: Which mountain was declared the highest in the world after reevaluation in 2013?

Answer: Mount Everest (still the highest, but the height was confirmed to be 8,848.86 meters after a 2013 survey)

Conclusion: Importance of GK Questions from 2013

Studying GK questions from 2013 provides insight into the major global and national events of that year. Such questions are frequently revisited in competitive exams, quizzes, and interviews. Keeping a record of these questions helps aspirants build a strong foundation in general knowledge, improves their chances of success, and keeps them informed about world affairs.

Regular revision of past GK questions, like those from 2013, ensures that learners stay sharp and confident. Whether you are preparing for a competitive exam or just aiming to enhance your knowledge base, focusing on important questions from previous years is an effective strategy.

Tips for Preparing GK Questions and Answers 2013 and Beyond

- Create a dedicated GK notebook with questions and answers from each year.
- Use online quizzes and apps to test your knowledge regularly.
- Watch news summaries and documentaries related to major events of 2013.
- Join GK discussion groups or forums for interactive learning.
- Revise periodically to retain facts effectively.

By consistently updating your GK with questions from past years like 2013, you will develop a comprehensive understanding of important facts, trends, and historical events that shape our world today.

Note: This compilation is not exhaustive but highlights some of the most significant GK questions from 2013. For a more detailed study, refer to year-specific GK books, competition archives, and official exam syllabi.

GK Question and Answers 2013: A Comprehensive Guide to the Year's General Knowledge

Introduction

GK question and answers 2013 serve as a valuable resource for students, competitive exam aspirants, and trivia enthusiasts seeking to test and expand their general knowledge base. The year 2013 marked significant developments across various domains—politics, science, sports, awards, and world events—that are often reflected in GK questions. This article aims to delve into the notable questions and answers from 2013, providing readers with an in-depth understanding of the year's important facts, along with contextual insights to enhance learning and retention.

The Significance of GK Questions from 2013

Every year, general knowledge questions evolve based on current affairs, discoveries, and global happenings. The 2013 GK set is particularly interesting because it encapsulates pivotal moments that influenced the world and India alike. For aspirants, mastering these questions not only boosts exam scores but also enriches their awareness about recent history and ongoing global developments.

Major Themes in GK Question and Answers 2013

The GK questions from 2013 broadly cover the following themes:

- Political and International Events
- Science and Technology
- Sports Achievements
- Awards and Honors
- Economics and Business
- Environment and Ecology
- Miscellaneous and Miscellaneous Trivia

Let's explore each of these themes in detail.

Political and International Events in 2013

Key Political Developments

2013 was marked by major political shifts and international diplomacy. Some of the notable questions include:

- Who was the Secretary-General of the United Nations in 2013?

Answer: Ban Ki-moon

- Which country experienced a significant political crisis leading to the resignation of its Prime Minister in 2013?

Answer: Italy (Prime Minister Silvio Berlusconi resigned, and Enrico Letta took charge)

- In 2013, which nation became the first African country to qualify for the FIFA World Cup?

Answer: Algeria

- Name the Indian politician who was elected as the President of India in 2012 and held office throughout 2013.

Answer: Pranab Mukherjee

Major International Events

- What was the name of the historic agreement signed between the U.S. and Afghanistan in 2013 regarding the future presence of U.S. troops?

Answer: The Bilateral Security Agreement (BSA)

- Which country hosted the 2013 ICC Champions Trophy in cricket?

Answer: England

Notable Political Figures

- Who was appointed as the new Prime Minister of Bangladesh in 2013?

Answer: Sheikh Hasina (re-elected in 2013)

Science and Technology Highlights of 2013

Breakthrough Discoveries and Innovations

2013 saw several scientific breakthroughs, often forming the basis of GK questions:

- Which planet was officially classified as a dwarf planet in 2013 by the International Astronomical Union?

Answer: Pluto

- What was the name of the first commercially available 3D printer launched in 2013?

Answer: The first commercial 3D printer was the MakerBot Replicator 2

- In 2013, which country launched the Mars Orbiter Mission?

Answer: India (ISRO launched Mars Orbiter Mission, Mangalyaan)

- Which technology giant announced the release of Windows 8.1 in 2013?

Answer: Microsoft

Scientific Milestones

- What significant discovery regarding the Higgs boson was announced in 2013?

Answer: Confirmation of the Higgs boson particle by CERN scientists

- Which gene-editing technology gained prominence in 2013?

Answer: CRISPR-Cas9

Sports Achievements in 2013

Sports frequently dominate GK questions, and 2013 was no exception:

- Who won the FIFA Ballon d'Or award in 2013?

Answer: Cristiano Ronaldo

- Which country won the ICC Champions Trophy 2013?

Answer: India

- Who became the first Indian to win a gold medal at the World Wrestling Championships in 2013?

Answer: Sushil Kumar

- Name the Indian cricket team captain in 2013 during the ICC Champions Trophy.

Answer: Mahendra Singh Dhoni

- Which athlete set a new world record in the men's 100 meters in 2013?

Answer: Usain Bolt (though he equaled his own record, he remained the fastest)

Awards and Honors of 2013

This section includes notable awards conferred in 2013:

- Who was awarded the Nobel Peace Prize in 2013?

Answer: Organisation for the Prohibition of Chemical Weapons (OPCW)

- Who received the Bharat Ratna, India's highest civilian award, in 2013?

Answer: Atal Bihari Vajpayee (posthumously awarded in 2015, but discussions and recognitions related to his leadership were prominent in 2013)

- Which film won the Best Picture at the 85th Academy Awards in 2013?

Answer: "Argo"

- Who was awarded the Booker Prize in 2013?

Answer: Eleanor Catton for her novel The Luminaries

Economic and Business Developments in 2013

- Which country's economy was the fastest-growing among G20 nations in 2013?

Answer: China

- What major global company announced a significant acquisition or merger in 2013?

Answer: Facebook announced the acquisition of Instagram in 2012, but its impact was felt through 2013; additionally, in 2013, Apple announced the iPhone 5s and 5c launch.

- Which Indian company became the most valuable in market capitalization in 2013?

Answer: Reliance Industries

Environment and Ecology in 2013

- What major environmental event occurred along the Indian coast in 2013?

Answer: The massive cyclone Phailin struck the eastern coast of India

- Which animal was declared extinct in the wild in 2013?

Answer: The Western Black Rhinoceros (though the process was ongoing, the IUCN officially declared it extinct in 2013)

- What was the theme of Earth Day 2013?

Answer: "The Face of Climate Change"

Miscellaneous Trivia and Noteworthy Facts

- Which viral social media phenomenon gained popularity in 2013?

Answer: The "Harlem Shake" videos

- What was the name of the popular gaming console launched by Sony in 2013?

Answer: PlayStation 4

- Which iconic Indian space manned mission was announced but not launched in 2013?

Answer: The Indian Human Spaceflight Program, later named Gaganyaan, was in planning stages during 2013.

How to Use 2013 GK Questions for Competitive Exams

Understanding the pattern and types of questions from 2013 can greatly improve preparation strategies:

- Focus on current affairs around 2013, including political changes, international treaties, and scientific breakthroughs.

- Keep abreast of sports achievements and awards handed out during that year.

- Regularly revise world events and Indian history and polity to grasp the context behind questions.

- Practice with mock tests that incorporate GK questions from 2013 to improve speed and accuracy.

Conclusion

GK question and answers 2013 encapsulate a year of remarkable global and national milestones. From scientific discoveries to political upheavals, and from sporting triumphs to cultural accolades, the year offers a rich tapestry of knowledge. Aspiring learners and competitive exam candidates can leverage this information to build a strong foundation in general knowledge. As history often repeats itself or gets referenced, understanding the events of 2013 not only prepares you for exams but also enhances your awareness of recent global developments.

By delving into the questions and answers from 2013, enthusiasts can appreciate how the world evolved during that period and how those events continue to influence current affairs. Staying updated with such historical GK points ensures that you remain well-informed and ready for any quiz or exam that tests your breadth of knowledge.

Remember: Consistency is key. Regular revision of GK questions from past years like 2013 will strengthen your overall preparedness and boost confidence in any competitive scenario.

QuestionAnswer What was the major international event that took place in 2013? One of the major international events in 2013 was the election of Pope Francis as the 266th Pope of the Roman Catholic Church. Which country hosted the 2013 ICC Champions Trophy in cricket? England hosted the 2013 ICC Champions Trophy. Who was awarded the Nobel Peace Prize in 2013? The Nobel Peace Prize in 2013 was awarded to the Organisation for the Prohibition of Chemical Weapons (OPCW). What significant technological advancement was made in 2013? In 2013, the Bitcoin cryptocurrency gained widespread attention and saw a significant rise in value. Which film won the Best Picture Oscar in 2013? The film 'Argo' won the Best Picture Oscar at the 85th Academy Awards in 2013. What was a major scientific discovery or achievement in 2013? NASA's Curiosity rover discovered evidence of ancient freshwater lakes on Mars in 2013. Which country became the first to approve a vaccine for Ebola in 2013? Sierra Leone became the first country to approve an Ebola vaccine in 2013. Who was the Prime Minister of India in 2013? Manmohan Singh was the Prime Minister of India in 2013.

Related keywords: general knowledge, quiz, trivia, current affairs, GK questions, GK answers, 2013 events, general awareness, competitive exams, quiz questions

Read the full article online: [GK QUESTION AND ANSWERS 2013](#)