initial conditions

a novel

T. K. FLOR

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Sample Chapters

THE HUNGRY BOSON

It was a fine morning – the sky was azure, birds chirped from treetops, and a stream on the edge of the lawn glinted in sunlight. In a living room of a two-bedroom brick house nestled between the stream and Chadwick Drive, Danielle Meller was sitting with her back turned to a pair of large windows, unpacking yet another cardboard box. From a TV set that she had absentmindedly turned on, an insistent feminine voice carried on.

"Nowadays, a woman must have a profession. Not merely a day job, but a rock-solid career that empowers and sets up her own social circle. Dependable income secures a woman's independence."

Danielle raised her head above the box and glanced at the TV. The woman on the screen was rather young and immaculately groomed, but nevertheless she reminded Danielle of Mrs. Lerner, her mother-in-law-to-be. Too strongly, actually, Danielle decided. She felt no regret ruffling Sarah Lerner's feathers. If Jonathan's mother could not accept that they had agreed on a long-distance relationship, that was not Danielle's problem.

Danielle turned off the TV, pulled up the blinds and opened the windows. Daylight burst inside, bounced off bright creamy walls and half-filled bookshelves, dappled the lovely fireplace and the polished hardwood floor cluttered with kitchenware, books and clothes. She breathed the fragrant air, surveyed the garden and the sparkling stream. The morning was too bright for reflections, too pretty for organizing her belongings in her new home. It was, after all, one of the last days of her well-earned vacation before starting a new job.

Dressed in a light summer dress and sandals, Danielle left the rented house and ambled along Chadwick Drive. Small patches of

wood interposed with tidy lawns. Shiny minivans, carelessly tossed bicycles, and scattered toys indicated that people lived there peacefully and comfortably.

The sun rose higher, dissipating the morning's freshness. What had started as a pleasant walk became a monotonous stroll along nearly-identical leafy streets. Unable to distinguish one nice neighborhood from another – they all looked like hundreds of other well-to-do neighborhoods sprawling across small mid-Atlantic towns – Danielle decided to go back to unpacking.

"Rats," she muttered, realizing she did not have the slightest idea where she was or where Chadwick Drive was. She lifted her head, narrowed her eyes and looked around. In the middle of the town, towering over the two-story brick and wooden houses, was a group of massive buildings, collectively known as King Solomon University.

Envisioning a glass of icy lemonade, Danielle headed straight towards the tallest edifice. The sun was nearly above her head when she reached a street bordering the university's campus. She turned to the left, in the direction of the Main Street and its cafés. To her right, a narrow lane branched into the campus – a shady lane that stretched like an invitation to hide from the glaring sun. Going into the alley, she half expected to see a "private" or "no trespassing" sign posted on one of the trees, not a huge marble arch rising high over the paved lane. It looked incongruous and forbidding, like a gigantic guardian, erected to deter those who had no business going in. Danielle hesitated. A swift sensation of foreboding made her take a few steps back. There was no commemorative plaque, but near the top of the arch was an inscription. It read:

"King Solomon University. Since 1822. Truth We Pursue."

"A nice motto," she murmured. But there was something creepy about the arch. Feeling slightly unnerved, she returned to the street she came from and started to look for a nice café to relax in.

The buildings facing Stateside Street were law firms and real estate offices, boutiques and an upscale barbershop. Parched and annoyed at not being able to find her way in a small town, Danielle was slow to distinguish a new scent wafting in the warm air, an elusive aroma that intensified as she walked down the street. A whiff

of the tantalizing mixture brought to Danielle's mind freshly baked cakes, summer berries, and melted chocolate.

"A fantasy," she dismissed the thought, but quickened her pace. A bakery shop would have cold bottled water and fresh muffins and brownies, maybe a few tables.

Danielle's nose twitched when she reached a single-story house. Her mouth watered, so seductive was the scent engulfing her. On a sign above the door, she read "The Hungry Boson."

A strange name for a café or a bakery, Danielle thought. For a while, she just stood there and inhaled the smells that floated around, tickled her nostrils. Then she stepped inside.

Shaded from bright light, Danielle saw lace curtains drawn on windows, wooden round tables, and wide flowery chairs that belonged to an old-fashioned teashop. Buttery scents, fruity scents, and heavier chocolaty aromas swirled and glided all over. She inched forward; her eyes grew bigger and bigger as her stare shifted from an espresso machine to trays laid on refrigerated shelves. No muffins. No brownies. She gaped at neatly arranged éclairs, pies and tarts.

"A lovely day, isn't it?" a woman's voice came from the back of the shop. Glancing in that direction, Danielle glimpsed an elderly woman put a book aside and walk to the counter.

"How can I help you?" the woman asked. Her voice was friendly, its light accent matching the teashop ambiance.

"It's so beautiful here," Danielle said. "Can I get a cappuccino and a glass of water?" She turned her head towards a distant tray. "And one of these éclairs, please?"

Danielle gulped the water while drops of coffee slowly dripped into a cup. Her curious stare flitted from object to object, until it paused on a couple of newspapers at the edge of the counter.

"The King's Monkey?" Danielle read aloud. "Is it a local newspaper?"

"The Monkey is a satirical students' paper," the woman replied.

"Hopeville Herald?" Danielle read another title.

"Plenty of gossip, and some university news." The woman put the coffee on the counter. "Drink carefully when you are reading," she advised. The coffee and the chocolate éclair were excellent. Reading about a professor in a Martian barbershop, Danielle felt at peace with herself and the world. She did not notice other customers walking in.

"Crawford will have to resign." Danielle heard a man's voice nearby. "Even he won't get away so simply."

She darted a sideways glance at the speaker. He was blond, somewhere in his late forties, well dressed, and fairly agitated. Of his companion, Danielle saw only the back of a blue polo shirt and bright ginger hair. She speculated that both men were affiliated with the university.

"So simply?" the redhead scoffed. "He has been apologizing in every possible forum ever since he let that remark slip."

Gathering that the men were talking about Crawford's scandal, Danielle pricked up her ears. Crawford's messy slip, as to why female scientists lagged behind their male colleagues, had received unprecedented nationwide coverage, and was met with wide disapproval. She was curious to hear what these men thought about it. Since they made no attempt to speak quietly, she had no qualms about eavesdropping on their conversation.

"And he will continue to do so," the blond said darkly, "maybe even after his resignation."

"Come on," the redhead objected. "At some point he'll kindly explain that he has other obligations and ignore further taunts. For how long is he expected to pay for a single misguided remark?"

The blond shook his head. "The criticism won't subside if he tries to ignore it. He simply cannot appear condescending to women scientists."

"I see no point in fretting about it," the redhead said. "Crawford has a nice faculty position to fall back on, and nobody is interested in an ordinary professor's views."

The conversation paused while the men drank their coffees and privately lamented, or so Danielle assumed, the lack of public interest in ordinary professors. Enjoying the free entertainment, she speculated about which department the men belonged to, if they were indeed university professors. When the blond lowered his cup and sighed, Danielle put guesses aside. She listened attentively.

"Yet, there is something in his remark. For years women avoided physics, and nobody could figure out why."

"You don't attribute their lesser aptitude to biological differences, a la Crawford?" the redhead chuckled. "What about women in astronomy, in biophysics, even a few headstrong, like Susan, in theoretical physics?"

"What about them?" the blond grumbled.

"How would you explain their success without suggesting that they're freaks?"

Danielle itched to enlighten the chauvinist crackpots that intelligent women were not nature's accidents, but decided that as a new post-doc, it was not a good way to introduce herself to the members of faculty.

"Don't gloat, Isaac," the blond gruffly advised. "The media has already taken care of that. The uproar has nothing to do with the outstanding ones who are sought by top universities. It's about the entire pool of female researchers."

Danielle glowered at her empty plate.

"What I recall and most people seem to overlook is that Crawford was speaking of a biological bias that shifts the odds, and not about general laws." The blond went on, "Just look at the statistics in physics. Despite all the encouragement, the special grants and scholarships they have been getting, only precious few go beyond the graduate level. The women to men ratio among tenured researchers is embarrassingly small."

"Have you considered that women might be too rational to pursue a career with such unfavorable odds?" Isaac asked. "Or that most female students might discover that they dislike quantum mechanics?"

"You treat this as a joke because you couldn't care less why it is so. What if women are less apt to understand quantum mechanics?"

"Does anyone understand it?" Isaac quipped.

While the blond drained his cup and grumbled something inaudible, Danielle made a mental note to introduce herself to Isaac when he would not be in the company of the stuffy bore.

"We know that male students do not shy away from making a

living from abstractions they don't understand," Isaac said. "But what allows us to assume that most women have similar inclination?"

A thud behind the counter startled Danielle. The men rose, the blond headed straight to the door, Isaac approached the woman.

"Are you hurt, Anne?"

"My book fell," Anne said firmly. Isaac whispered something and went to join the blond.

Denied the rest of the conversation, Danielle picked up the *King's Monkey* and *Hopeville Herald*, and put them back on the counter.

"My name is Danielle," she introduced herself to the woman.

"Anne," said Anne. She slightly bowed her head. "How do you do?"

"Great. I'd have never imagined, but I'm really happy to find a teashop so close to the university."

"Working there?" Anne asked politely.

"I'm going to in a few days." Danielle smiled. She wanted to know more about Isaac, but Anne's elegant looks did not encourage a chummy approach. "I thought interest in Crawford's remark was ebbing," Danielle commented offhandedly, "but I see it is still making waves."

"I suppose you could not help overhearing them," Anne said rebukingly.

"I normally wouldn't listen uninvited, but Isaac's words reminded me of a guy I had dated." Seeing interest flicker over Anne's face, Danielle went on. "Paul Zeeman was a very bright and unbearably arrogant graduate student. He showed contempt for anyone less quick and bright than himself."

"People mellow when they become older. They often learn to treat others with some respect."

Danielle shook her head, to show that she doubted anything could cure Zeeman.

They sat quietly for a few minutes, each woman immersed in her own recollections and thoughts. When Anne rose to collect the dirty dishes, Danielle continued to sit uninterrupted, until new customers came in.

FIRST IMPRESSIONS

The dawn of the first of September was unusually chilly, or so it seemed to Danielle, who woke up shivering. She was alone, without Jonathan to cuddle up with under the blanket, to snuggle against while he was sleeping. Through the open blinds a pale morning light rose above silhouettes of trees, pushed its way upward through solid gloom. Danielle curled up and wrapped herself tightly. Feeling warmer and more comfortable, she wished for the day to start with a good omen, then sank back into a slumber.

The new day had already begun when Danielle heard the next-door neighbor's Rhodesian Ridgeback barking, and distant barks joining it as a choir. Along the street someone started a car. Her phone rang persistently.

"Good morning," Danielle yawned into the receiver.

"Good morning, dear," her mother's voice greeted. "How do you feel?"

"Sleepy." Danielle sat up, adjusted her pillow, and tried to stifle another yawn. "I'm still in the bed. How are you and Dad?"

"Just fine," her mother said curtly, her voice worried and tired.

A suspicion that something was wrong woke Danielle up. "Has anything happened?"

"Nothing unusual, just an early call from the hospital. Joe asked me to give you his best wishes before he left."

Pleased that her father had remembered it was her first day at work, Danielle smiled. Having grown up with a surgeon father, she was accustomed to ignoring medical emergencies as long as all was well with her family.

"Thanks, Mom, and don't worry," she said lightly. "Dad is too happy to mend and sew to mind these early calls."

Although Michelle made no reply, Danielle could bet that she smiled. Her mother may prefer understatements over flippancy, but at the core they were alike.

"Do you teach the first period today?" asked Danielle.

"Honors Physics for Sophomores and Juniors. I'd be going. Take care and good luck for your meeting with the professor."

"Thanks, Mom. I'm pretty sure I'll be fine, especially as I won't see Green until October. Besides meeting with the department's secretary, I'm free to do what I want."

The conversation ended, and Danielle went to dress. Soon clothes were scattered all over the bed; little tubes and bottles – the discreet providers of unblemished complexion – vied for a place under the mirror. Sounds of screaming and yelling children interrupted the good-looks routine. She hurried to the living-room, where the shrieks were even louder, and peered from a window. Children were reveling on her neighbor's lawn, a few playing tag, and others cycling carelessly or showing off on skateboards. Adults formed a chattering circle, paying no attention to the commotion. Danielle looked on as a school bus came roaring through Chadwick Drive. Bicycles and skateboards were tossed aside, and backpacks and lunchboxes were picked up. After a few hugs and kisses, cameras documented the children forming a line and getting into the bus. Three minutes later it drove away. Chadwick Drive was empty again.

Only the very old, babies and stay-at-home moms are not in a hurry to be somewhere else, Danielle thought, walking to the kitchen. She made instant coffee, buttered a piece of toast and spread jam on it. Alternating between crunchy sweetness and scalding coffee, Danielle was contemplating her hopes and worries when the phone rang.

"Yes," she snapped.

"Good morning, Doctor Meller," said a drowsy male voice.

She grinned to hear Jon's voice. "Good morning, Doctor Lerner. Who woke you up so early?"

"A sense of duty. Who else would hurry you up or suggest you leave part of your wardrobe untried?"

"Too late. I'm already dressed..."

A soft whistle came through the receiver. Ignoring it, Danielle said, "...in a pair of jeans, a gray T-shirt and a new pair of sneakers."

"Not exactly exciting," he groaned.

"I want to make a good first impression."

For an answer, Jonathan yawned so deeply that Danielle decided it would be worthless to banter with a sleepy man.

"I'll change into something more seductive when you come," she offered.

"I'm looking forward to it." Jonathan yawned. "Sorry, I had a nearly sleepless night."

"Why did you have a sleepless night when I'm not around?"

"Remember that tricky algorithm I had trouble with?"

"Hmm. Sort of."

"Well, last night I cracked it. Changed a few lines in the code and it runs with a whooping speed."

"Great! Did you fall asleep happily hugging your computer?"

"Not quite. I still could distinguish between the keyboard and the pillow, and happened to prefer the latter. I vaguely remember having crawled to bed, even though it wasn't so long ago."

"I know." Danielle's voice warmed. "Go to sleep. I'll email you later."

"Have fun, and good luck!"

Outdoors, Danielle felt she had both. Chadwick Drive was bathed in sunlight, and lawns sparkled so vividly they might have been strewn with emeralds. She wanted to skip and twirl, but, believing she would look silly acting like a child, she walked lightheartedly towards King Solomon University.

Turquoise and gold, the colors of the university, glittered from shop windows and shimmered from ribbons and balloons tied to wrought-iron bars fencing off the campus. High above the open gates of the main entrance a huge banner was stretched, welcoming the students to a new academic year. Walking through the gates, Danielle joined other young men and women who flocked to a cobbled half-circle separating the entrance from a lawn. For a moment, her eyes scanned the imposing buildings and trees tended by generations of dedicated gardeners. She soaked up their dignity,

wealth and tradition.

Reminding herself that there would be plenty of time to tour the campus, Danielle navigated her way through a network of paths. After passing by a small building that looked like a Gothic chapel, the stream of people thinned. She stopped, turned around in search of a gray edifice, and sighted the pediment of Fitzgerald Hall.

From a distance, there was nothing welcoming about it. Coming closer, she stared at a grandiose façade, enormous stone stairs and massive columns. Gray without a speck of color, Fitzgerald Hall looked overbearing even on a sunny day.

Not every pomposity should be preserved in stone, Danielle thought, eyeing the stony grandeur with disdain. She ascended the stairs and pushed the oversized wooden door. It did not budge. Applying both hands, Danielle pulled and tugged until the door opened. She slipped into a small lobby before the door closed. To the left and right extended a modern labyrinth of doors and corridors, illuminated by fluorescent lights and covered with grayish carpets. On the second floor, Danielle sauntered into another labyrinth of corridors, which looked vaguely familiar – she had been there for an interview a few months ago. She met no one as she wandered about, looking at photos and posters on the walls. Most doors were closed. The place was unusually deserted for the first day of the fall term.

Danielle hesitated before a door standing ajar, but before she could make up her mind, a guy swung it open from within and scanned her with an amused glance.

"You got lost?" he asked. "This is the theoretical physics building. All the lectures are given at Lawrence Hall, over the parking lot. Not here."

"Good." Danielle looked straight ahead, but the guy's tall frame blocked the room from her view. Striving to sound cheerful, she added lightly, "Who would like to hear math or physics this early in the morning?"

"You are not a physics student?" The guy managed to sound even more patronizing than before. "What are you studying then? Materials science? Chemistry? History of art?"

"None. I'm not a student."

"Looking for your boyfriend?" There was a glimmer of interest in his glance. "Have no boyfriend and need assistance?"

"Not quite." She smiled. "My name is Danielle and I'm on my way to meet Mrs. Klein. I'm a new post-doc in professor Green's group."

As it sank in on him that she was a post-doctoral fellow, the stupid expression on his face was a pure pleasure to look at, even though it did not last long.

"George mentioned a new post-doc, but..." The guy shook his head and smiled broadly. "I'm Ben. Marjory's office is farther along the hallway."

Danielle took her time to survey the locked doors of professors Lisitsin's, Green's, and Cobs' offices. She looked at photos of exploding stars, images of colliding galaxies and illustrations of black hole halos hung on the walls. At a notice board she stopped and drew a breath. Next door was the secretaries' office, and it was wide open.

A woman in her fifties sat behind a large desk, looking at a newspaper. Her suit was very well-tailored and her earrings looked expensive. She raised her head at Danielle's knock and said "come in" in a businesslike tone. Perceiving that Mrs. Klein would rather continue reading than speak to her, Danielle quickly introduced herself.

Mrs. Klein put the newspaper aside, said "How are you?" and motioned for Danielle to sit down. She completed the paperwork in ten minutes, and handed the forms to Danielle to sign.

"That finishes the administrative part." Mrs. Klein smiled cordially and gave Danielle a key. "213 is along the hall. You will share the office with Chi Wang, another post-doc of Dr. Green."

"Thank you."

"If you have any problems or questions, don't hesitate to ask me or Amanda." Mrs. Klein gestured to a smaller desk standing vacant by the other wall.

"I will," Danielle said as Mrs. Klein rose and went to the filing cabinet. Curious about what she found so interesting in *King's Monkey*, Danielle sneaked a glance at the open page. At its bottom was a caricature of a man standing inside a whale. A bubble above the

whale said: "Please professor, let me take you to the beach." A bubble over the man's head said, "Not yet... Not until my Great Theory of Everything is completed."

"That's funny," Danielle murmured when Mrs. Klein was back at her desk, holding a thick folder. Mrs. Klein gave the drawing a cursory glance, then looked at Danielle.

"Do you find the professor amusing?"

"No. He and the whale look quite miserable."

"What is so funny then?"

"Who has ever heard about a professor choosing a cramped hideout over the comfort of the academic life? The idea is ludicrous."

"Dr. Green has asked me to give you this," Marjory said a tad too politely, and handed the folder to Danielle. Her face softened seeing Danielle's bafflement. "These are papers and reviews George wanted you to read before his return."

Danielle looked perplexed. Pitying her, Marjory asked, "Didn't George tell you he'd leave you papers to read?"

"Yes," Danielle murmured, unable to shift her eyes from the folder. "A few papers. I did not realize it would be hundreds of pages."

Marjory's pleasant expression did not betray the amusement she felt. She nodded when Danielle thanked her, then shook her head as Danielle took her possessions and left. Danielle was still close to the secretary's office when Marjory answered the phone.

"Yes, Isaac, I know about the *Monkey*." Danielle heard her saying. "I was looking at the caricature when you called."

The door to room 213 was closed but not locked. The office was very narrow. The combination of two desks, three chairs, two shelves over each desk, and a blackboard gave it a crammed look. On the desk closest to the door was an old monitor. Otherwise, it was empty, and so were the shelves. Beaming with gratification that she had half an office at the physics department of King Solomon University, Danielle put Green's folder on the edge of the desk's worn surface. To her surprise, Chi, who sat by the desk near the window, did not turn his eyes away from his monitor.

"Hi. I'm Danielle." She waited for Chi to turn his head. "We met

when I came for the interview with George and later at a conference."

"Chi." He bobbed his head in greeting. "Dr. Green wrote me you will come today."

"I should write him. Does he communicate a lot through emails?"

Chi flashed a shy smile and returned to stare at the screen.

Not a friendly type, Danielle thought. Reckoning that he was not interested in conversation, she began setting up her computer.

It took a couple of hours, several phone calls, and eventually Chi's help, before Danielle was able to write emails using her brand new university address. Satisfied with the achievement, she leafed through papers in Green's folder, read random bits, then emailed Green. A sideways glance at Chi found him immersed in whatever was on his screen. Neither passers-by on a nearby sidewalk, nor cars coming and going to the parking lot distracted him. Not even a pair passionately kissing near the window. Jon, Danielle thought, envying the kissers.

"Do you want to go for a lunch?" Danielle asked Chi. Even if he was reticent, he had helped her, doing so in a nice, pleasant way.

"Not today," Chi said without moving his head.

"Do you have group lunches occasionally?"

"I usually bring food from home, and Ben eats out with other graduate students. We have pizza seminars when Dr. Green is here."

"Is Ben tall and blond?"

"Yes."

Recalling Ben's patronizing attitude, Danielle opted to go and eat alone. She had a copy of the *King's Monkey* when she came back.

"How do you fine-tune the cosmological constant?" a male voice carried from the office.

She must have misheard, Danielle thought, letting go of the knob. No one did anything with the cosmological constant. That term had been obsolete for decades.

"I don't," Chi said. "I assume it's a flat universe."

Chi's reply reassured Danielle that nothing was wrong with her hearing. "Flat" referred to a universe with a regular three dimensional Euclidean space that stretched endlessly. She opened the door and saw Ben and Chi huddled in front of Chi's monitor, their noses almost touching the screen. She laid the newspaper on her desk and stepped closer to take a look.

On the monitor, shiny specks drifted through a backdrop of black voids, bright spots merged into even brighter islands. Excited to see a computer simulation of the universe (that was why she came to Green's group), Danielle asked, "Does each island represent a galaxy?"

Chi nodded and moved a bit, so she could see better. They watched the coalescence of lights form local patterns, then the emergence of a distinctive network. The universe rolling on the screen was billions of years younger than ours. Millions of years of evolution took about a minute.

"It's amazing!" Danielle told Chi when the simulation ended.

"Can I have the *Monkey* for a moment?" Ben asked from Danielle's desk.

"Sure."

"That guy has guts." Ben showed Chi the page with the caricature. "Don't you think so?"

Chi's expression was blank. Ben, on the other hand, seemed to know exactly what the caricature was about.

"Do you know who is the professor?" Danielle asked.

Ben eyed her, not exactly mocking, yet wordlessly asserting that he knew more than she did. Seeing that she bore with his stare without flinching, Ben addressed Chi with, "You haven't said anything."

"It's tasteless."

"Of course it is. But isn't it on the mark, considering whom they picked on?"

"He is a professor from the fourth floor, or someone from another department," Chi said indifferently. He looked at Danielle. "Why do you ask who he is?"

"I'm curious about the physics department. Who is on the fourth floor?"

"High-energy physics," Chi replied.

Danielle darted a dubious glance at Ben. "Is there anyone you know as a reclusive hermit?"

Assessing that Chi, despite his usual reluctance to speak ill about the department's faculty, was also interested, Ben said, "I think it was aimed at Cobs. His first name is Jonah."

That got Chi's and Danielle's attention.

"Cobs is credited with bringing cosmology and astrophysics to the physics department. He was pretty famous twenty or thirty years ago, but..." Ben sniffed. "He has no students and he hasn't published anything for five or maybe even ten years."

With so many brilliant young physicists vying for every opening for a tenured position, Danielle had little sympathy for a selfindulgent professor who desperately stuck to his chair.

"If he is burned out," she said, "can't the department find an excuse for an early retirement?"

"I suppose they have sent Cobs a couple of hints, but no one would ever dare to do more than that." Ben cast a meaningful glance at the post-docs. "It boils down to having excellent connections at top universities and research facilities."

At this point Chi turned back to the monitor, but Danielle could not shrug it off that quickly.

"Maybe Cobs is working on a new theory?" she asked.

"If he is," Ben sneered, "no wonder it was premiered in the *Monkey*." He turned to Chi. "Can we go back to your program?"

They delved into the details of the simulation. Trying to ignore Ben's rising voice and Chi's calm responses, Danielle started to read the first paper from Green's folder. Her thoughts, however, meandered from science to the caricature. Wondering whether it depicted a professor she might encounter in the hallway, she browsed the physics department's website, looking for a link to Cobs' homepage.

In a small photo, Cobs looked about fifty. There were no dates along the names of distinguished universities Cobs had attended as a student and as a postdoctoral fellow; the first date was the year he had started as an assistant professor at the physics department of King Solomon University.

Unless he had been a prodigy preteen, the photo was fifteen or twenty years old, Danielle reflected. If Cobs was promoted to associate professor around thirty-five, or even thirty, he should be in his late sixties.

She read with growing interest that Cobs was for several years an editor of one of the most prestigious physics journals, and drooled over the names of the professional societies he was a member of. The awards Cobs had received evoked her respect.

Looking at the middle-aged man in the photo, a remark attributed to a great physicist sprang in Danielle's mind: "One will never accomplish what he has not done by the age of thirty."

Her thoughts shifted from Cobs' declining career to her aspiration to become the first female professor at the physics department of her Alma Mater. Deeming that this was achievable if her post-doc went really well, Danielle began to read in earnest the first paper from Green's folder.

CANDLES IN THE SKY

Observations demand assiduous effort, Danielle mused as she struggled with a lengthy astrophysics paper. After working insanely for half a year, no one wants the results to appear hastily or easily achieved, so the authors cram the pages with copious details. Reading such a paper was like eating a piece of triple-chocolate cheesecake – anticipation builds up after a first bite, but satiation comes quickly.

Other articles from Green's folder were strewn over her desk, together with newly borrowed library books and notes scribbled with calculations and comments. Like most of the papers she had read so far, the paper was comprehensive, rich with minute details about observations and with formulas used for their analysis. Did Green usually choose such papers? Danielle wondered. What kind of boss would he be? She darted a furtive glance at the other desk, where Chi was cocooned from anything that might impinge his unflagging concentration; his desk was tidy.

How can he go on without intermissions, Danielle thought, marveling at Chi's tenacious dedication to his monitor and keyboard. She could muster concentration and grapple with the papers from Green's folder, but her mind frazzled after a big serving of dryly-articulated, densely-printed data (meticulously amassed from stars exploding in different galaxies, mysterious outbursts of radiation, and cataclysmic events that had happened billions of years ago). Stumbling on an especially tedious section, she often sped up the reading by skimming through it, but after freely galloping to "conclusions," she had to retrace and cull the evidence for new data. To make the reading more interesting, she wrote down every shred of information that challenged the Cosmological Standard Model.

The model was based on and supported by numerous

observations, but in nutshell it relied on three pillars. The first was that the universe has been expanding and cooling uniformly from a much denser and hotter state. The second was that elements were first created when the universe was only few minutes old. The third was that primordial photons, known as Cosmic Microwave Background Radiation (CMBR), have freely streamed throughout the universe since it was about 400,000 years old.

By the end of her first week at work, Danielle found nothing in the papers to shatter these pillars. The theory of general relativity supplied a framework for astrophysicists to analyze data coming from distant, unrelated sources. All of the data snugly fit into a blueprint of the universe's early history. Some questions, however, remained unanswered.

The distribution of Cosmic Microwave Background Radiation pointed towards a flat, eternally expanding universe. General relativity required that such universe had a certain, "critical" value of energy density to sustain itself. What forged the energy density was open to speculations, yet most cosmologists considered massive matter in its various forms as the most straightforward source.

Recalling a paper she had already read, Danielle rummaged in the mess on her desk. She found it under her most recent reads. The paper argued that all the mass gathered in stars, globular clusters and dust, amounted to few percent of the critical energy density. That was not surprising, for it had been shown long ago that regular matter could not account for galactic gravitational pull. Dark matter, a form of matter never encountered on Earth nor directly observed, was necessary to fill up local shortages in matter.

Yet, the paper's conclusions pointed to a bigger shortage. Even with dark matter tossed in, matter accounted only for about a quarter of the energy density required to sustain the observed universe. Finally understanding why Green had assigned her to read these papers, Danielle turned towards Chi.

"What values of matter density do you use in simulations?" she asked.

Chi's inscrutable expression did not give away whether he was annoyed at the interruption.

"Four or five percent for regular matter," he replied after a short pause. "I vary the values for dark matter between different runs."

"Do different values change significantly how galaxies are formed?" Danielle asked. She deemed that they should.

"You should ask Ben. He knows more about dark matter, and he works on fitting matter density and interaction strength on galactic scale."

"So Ben works with WIMPs?" Danielle asked, expecting Chi to smile (in some theoretical models, dark matter was composed of hypothetical Weakly Interacting Massive Particles).

Chi shrugged and turned to scrutinize his monitor. Disappointed that discrepancies in universe's mass and energy density did not evoke a stronger reaction in Chi, Danielle decided it was about time to update Green. She frowned, twiddled a stray lock of hair and rubbed her ear, and after eleven trials composed four short sentences that conveyed her tenacity without groveling or resorting to phony enthusiasm. After clicking on send, she unscrupulously left the office to reap her reward at the Hungry Boson.

In the following days, Danielle studied more papers from Green's folder. The only change in the routine was an invitation, which said:

You are cordially invited to a physics colloquium to be held on Thursday, September 9th, at 4pm in the auditorium (room 11a) at Fitzgerald Hall. Geoffrey Pierce, from Birchwood University, will talk about:

The standard model: milestones and setbacks.

Teas and light refreshment will be served in the Lounge (room 10) at 3:30pm.

Teas and light refreshment sounded like an invitation to a tea party, Danielle reflected. At physics colloquiums she had attended, physicists tried to tear each others' research to pieces while stuffing their mouths with chocolate-chip cookies and holding plastic cups with cooling coffee. Yet, the phrase "teas and light refreshments" suggested that scientists in old universities had a more refined attitude, that they nibbled refreshments while making snide remarks, and that they showed better manners while gloating over others' mistakes. Envisioning bite-size savory sandwiches and fruit tarts,

Danielle glanced at Chi to check whether she might talk to him; he was typing industriously, showing no inclination to chat about pastries. No one would complain if they catered from the Hungry Boson, she reflected.

Ben peeped in from behind the door. "You'd better hurry," he said. "The best cookies disappear first."

This was a strong argument, which fully convinced even Chi. They quickly strode along the corridors to the main staircase, descended to the first floor and joined a steady stream of people heading to the Lounge.

"Where are they all coming from?" Danielle whispered to Chi.

"Lawrence Hall," he murmured back. "Condensed matter, plasma, low temperatures, everything except astrophysics and high-energy are at Lawrence Hall."

Danielle wanted to point out that only those who could not or chose not to pretend that they were doing something useful were left at Fitzgerald Hall. Considering Chi's reluctance to criticize anything involving the department, she said, "There must be better lecture halls at the newer building. Why aren't they having the colloquiums there?"

"The auditorium in Lawrence Hall has cushioned seats, three screens, and it's connected to the communications center," Ben said from behind. "But it doesn't have over a hundred years of tea sipping tradition. Chocolate chip cookies are called a snack at Lawrence Hall and 'light refreshment' at Fitzgerald Hall."

"Really?" Danielle asked.

"Didn't you know that the physics department at King Solomon is over a hundred years old?" Ben teased. "Generations of physicists have gathered at the Lounge since the dawn of something."

"Over teas and pastry," Danielle continued in the same tone. "Does the department's determination to keep up with its noble traditions extend to using china and real cutlery?"

"You'll see," Ben said solemnly. After another turn, they stopped in front of oversized, widely opened wooden doors. "Here it is."

"It" was an impressive room, with a high plastered ceiling and heavy green drapes hung over unusually large windows. The buttercolored walls were adorned with portraits of men of different ages dressed in the high fashion of the late nineteenth century. The decor was dignified and elaborate but not overbearingly fastidious. Unlike Fitzgerald Hall's façade, the Lounge looks hospitable rather than grand, Danielle thought. If they'd get rid of that old green blackboard, it could as well be a nineteenth century drawing room.

Only one man in the room wore a suit. He was talking to those around him, quite at ease despite the inevitable plastic cup clutched in his hand. The speaker, Danielle observed, looked as if he knew what to expect.

Real china, Danielle sniggered wordlessly when she came closer to a long wooden table, where an assortment of cheap cookies was piled on a few white plastic plates. She cocked an eye at the gentlemen solemnly gazing from the walls, as if asking them, "Do you have any idea what is happening here these days?"

Chi and Ben were already in the queue for a plastic cup, a tea bag, or a teaspoonful of instant coffee. The less patient, Danielle noticed, avoided the queue altogether and hung around the "refreshments" table.

Why can physicists spend billions on accelerators and space telescopes, but cannot afford anything edible at their seminars? The question was always beyond Danielle's understanding. Narrowly eying the "light refreshments," she doubted that bacteria would bother with this revolting mixture of sugars and fats. The Lounge was impressive, but the plastic cups and the questionable cookies were not an iota better than what they had had at similar gatherings at TIST (her Alma Mater, Thorboro Institute of Science and Technology). At TIST, she could chat and joke with fellow graduate students, and whine about the faculty. Here, she was a newcomer. Having no wish to schmooze with strangers, she went to the least crowded corner, to while away the time in forming impressions about the people of King Solomon University's physics department.

Tall, lanky professor Lisitsin, caught Danielle's eyes. She remembered him from the job interview, as a faculty who worked with Green. The man Lisitsin was talking to was noticeably younger, yet looked too old to be a grad student or even post-doc.

An assistant professor fawning a senior member of the faculty, Danielle speculated, watching with some compassion how the younger man gesticulated, a plastic cup in one hand and a fistful of cookies in another. Pity they weren't close enough to be overheard.

"It's time," someone called. Discarding cups and leftovers, physicists flocked into a spacious and modern auditorium. Professors descended from the topmost steps to the first rows, while students and post-docs took seats farther back. A young professor introduced the guest speaker, and then left the lectern to professor Geoffrey Pierce.

Pierce started his presentation with quarks and leptons – the most basic units of matter.

"The crowning achievement of the standard model is explaining how quarks and leptons interact to constitute the known particles."

Danielle smiled thinly at the conceit omission. When speaking about "the standard model," Pierce, like most high-energy physicists, meant the High-Energy Standard Model, not the Cosmological one.

He skimmed through constraints and conservation rules that determined which particles were feasible, and explained how short-lived heavy particles decayed into lighter ones. For leptons, the situation was straightforward: every lepton was an independent particle, and only the electron and its neutrino were stable. Single quarks, on the other hand, never formed a particle.

"Baryons like protons and neutrons are formed by three quarks." Pierce flickered a slide. "A proton is composed of two up quarks and one down quark, and it is stable. A neutron is composed of two down quarks and one up quark, and it is slightly heavier than a proton. A neutron decays into a proton, an electron, and its antineutrino."

Deciding that the audience was warmed up, Pierce moved on to more exotic particles. A colorful bubble, showing the year of discovery, was assigned to each particle. The number of bubbles grew quickly, creating a colorful chaos on the screen behind him.

"With the rising of energies accessible in accelerators, the number of new and unsought for particles was pushed up. In a few years, we were facing an overcrowded zoo." Pierce paused for a moment. All of the bubbles disappeared after he clicked on his laptop, and only quarks and leptons were left, this time divided into three groups.

"Three families," Pierce said. The up and down quarks were grouped with the electron and its neutrino into a first family; the rest of the quarks and leptons were divided between the other two families. Pierce pointed out the inherent order discovered underneath the apparent chaos. Then the lecture became more technical.

"Photon." With a click, Pierce added the particle mediating the electromagnetic interaction.

"And massive vector bosons that mediate the electroweak forces," he said, adding three more particles to the picture.

Pierce complicated the standard model further with the addition of gluons – particles carrying the strong interaction. He recounted the rudiments of the Standard Model and stressed its mathematical elegance. Danielle listened attentively as Pierce discussed the unification of electroweak interaction, the role of the Higgs boson, and the standard model's predictive power. He did not mention gravity, for the fourth fundamental interaction was not part of the high-energy standard model.

Although it was a bit jittery when encountering inconvenient infinities, the presentation was succinct. Pierce continued through the triumphs of the standard model without interruption, outlined the quest for further unification, and reached the end with, "Finding the particles predicted by the standard model is not sufficient to fully attest it, not until the most important prediction, the Higgs boson, could be verified."

What about dark matter? Danielle thought. Even if it was not detected, dark matter constituted most of the matter in universe.

There was applause. The faculty who introduced Pierce came back to thank him. As soon as questions were allowed, someone from behind asked, "Have you considered the possibility that the Higgs might never be discovered?"

"Who didn't?" Pierce chuckled. Ignoring a buzz stirred by his reply, he added, "I gather that someone from CERN is coming here in a few weeks."

"Armand Brochard will come in December," came a voice from a second row.

Pierce nodded. "I'd ask him about the likelihood of detection," he advised.

"Those who have been betting on Higgs's mass for the last twenty years," a voice from far left rumbled, "would appreciate an educated guess from a fellow in the Birchwood group."

"In short, give us numbers, Geoffrey," someone translated. "How much energy will it take?"

"A lot of money is being invested to show that the Higgs is just around the corner. I hope and pray that its mass would be in the range accessible by the planned Large Hadron Collider."

Laughing snorts from those who were amused by the laconic humor mixed with sporadic boos from those who were not.

The high-energy jerks are having a good time, Danielle concluded, recalling similar behavior from TIST. Considering the colossal cost of the new accelerator, she could not imagine the ramifications of not detecting the Higgs boson. From accelerators her thoughts flitted to Friday. She was wondering when Jonathan would come, when a loud voice asked, "What about the dark energy?"

The noisy background subsided into an expectant silence.

"I'm not sure I follow your meaning," Pierce said. His eyes searched the audience.

"I'm speaking about the recently observed cosmological constant," the same voice replied. "If it is a zero-point-energy, can you explain why it is not zero?"

"No," Pierce said after a moment. The audience hummed again.

"There is some confusion about the terms," someone pointed out. "Can you explain what is 'dark energy,' how it is related to zero-point-energy, and whether it's a new incarnation of the infamous 'cosmological constant'?"

Expectation pervaded the sudden silence. Danielle wondered what they were talking about.

"I wish I could answer what 'dark energy' is," Pierce said. "The term 'dark energy' is used interchangeably with the energy of the

vacuum, aka zero-point-energy."

"Why it is not zero then?"

"There is no reasonable answer that I'm aware of from the highenergy perspective." Pierce looked at the front rows. "I think that Susan can give a better explanation from the astrophysical perspective."

"Dark energy is a form of energy which does not arise from matter or radiation," said a blonde woman in the center of the third row. "For those of you who vaguely remember of having heard the term, cosmological constant was first introduced by Einstein in his theory of general relativity."

"Wasn't it his most famous blunder?" someone quipped.

"Einstein introduced the cosmological constant to balance galaxies' gravitational pull," Susan replied. "After Hubble discovered that the universe is expanding, Einstein discarded the cosmological constant as superfluous."

So? Danielle thought. Historical anecdotes usually were not relevant to modern physics.

"Recent supernova data strongly favor a non-zero cosmological constant. Right now, I'd call Einstein's brainchild a very far-reaching blunder."

The words pounded in Danielle's head, stirring up confusion. It was inconceivable that they were treating the cosmological constant as an observational fact.

"If the cosmological constant is indeed vacuum energy, do you have any comments about its value?" the professor who introduced Pierce asked.

Pierce spread his arms in a gesture of hopelessness. "Any value aside from zero would be orders of magnitude too high to agree with the reported observations."

"By 'orders of magnitude' do you mean a hundred and twenty orders of magnitude?" the person who first asked about dark energy inquired.

A hundred and twenty ORDERS of magnitude? Danielle pinched her arm. The number was unfathomable.

"The potential energy of the Higgs field contributes to the

vacuum energy and so do the zero-point vacuum fluctuations of the fields of the standard model. We can't tell to what extent these contributions cancel each other, since we are unsure about their signs."

Gaining precious little understanding, Danielle felt even more confused. Energies in high-energy models tended to soar, but she had never heard about anything coming close to this mismatch.

"If the total vacuum energy is of the same order of magnitude as the largest contribution," Pierce continued, "we expect it to be about Plank's mass to the power of four. That is a hundred and twenty orders of magnitude higher than the observed value."

"A discrepancy that requires further consideration," the professor who introduced Pierce added cryptically. He crossed his hands, thus signaling that the time allotted for questions was over.

Most of the audience, including Danielle, burst into laughter. Pierce hesitated a moment, then smiled. A discrepancy by a hundred and twenty orders of magnitude did not imply a need for additional study. It demonstrated that something pivotal was completely wrong.

Back from the colloquium, Danielle shoved aside a review she was plowing through, and searched for the papers she had not read yet. A title, "Observational Evidence from Supernovae for an Accelerating Universe and a Cosmological Constant," drew her attention.

Accelerating Universe. The words raised question marks in her mind. After a very violent start, the universe was cooling and expanding, expanding and cooling. It was dotted with supernovae (cataclysmic explosions of stars), but at large, it was undergoing a long stretch of repose. Could there be a repulsive force that accelerated its expansion? Was it really pushed apart?

She began to read the authors' account of how astronomers collated data from distant supernovae. Photons emitted at a star's explosion streamed in space, their wavelengths elongated (redshifted) as universe expanded. "Observational evidence" summarized intricate techniques used for measuring fluxes of photons, the photons' redshifts, and supernovae luminosities. The account of how data was calibrated, extracted, and later used in a multifaceted analysis was not

particularly interesting. All she needed to know was how distances to supernovae were derived from supernovae luminosity and from the flux of detected photons.

These distances, Danielle read, were also calculated independently for every redshift, using cosmological parameters such as mass density. To test the cosmological picture, the calculated and the observed distances were compared. If the distances were close – the cosmological parameters were considered reliable. Otherwise, computer software adjusted the values and then calculated the distances. The best fit for a flat universe had a cosmological constant.

For Danielle, this was incredible. She reread the section about distances and examined figures illustrating various combinations of cosmological parameters used for the best fit. The authors considered possible sources of error, but she could not see whether there were flaws in underlying assumptions or in interpretation.

She glanced at Chi, suddenly irritated by his monotonous clicking on the keyboard. He was at the colloquium, but he did not look impressed, bothered, or affected at all by what he had heard. Chi probably read it months ago, Danielle reflected, feeling a little ashamed that she had not.

Although it was a recent paper, Danielle looked for a newer preprint that would refute or cast a doubt on the paper's findings. She skimmed through Green's folder, pausing every time her eyes glimpsed the word "supernova." Only one paper, published in *Nature* by another group, seemed to be of any relevance. It was titled, "Discovery of a Supernova Explosion at Half the Age of the Universe and Its Cosmological Implications."

The data came from a different supernovae survey, but Danielle found the conclusions to be the same. The universe's evolution, inferred from faraway supernovae, was dominated by something omnipresent and unknown, which accelerated universe's expansion.

"What went wrong?" Jonathan asked, when he called that night.

"Nothing."

"You sound frazzled."

"I'm trying to reconcile what I heard and read today with the cosmological picture ingrained in my brain."

"Everything you have studied is wrong?"

Danielle recounted the papers' conclusions, then asked, "What do you think?"

"I'm impressed," Jonathan said, "even though I have only a nebulous idea what is a supernova."

"Why didn't you ask? The type Ia supernovae originate in white dwarfs. These stars are much denser than our Sun, so they have an enormous gravitational pull."

"Do they explode?" Jonathan asked hopefully.

"No, a white dwarf balances its gigantic gravitational pull inwards with a similarly huge pressure outwards. Supernova occurs when a white-dwarf is paired with a sun-like star. The white dwarf's gravitational pull is much stronger, so it rips the other star's outer layers and sucks them like a vacuum cleaner."

"Sounds like a typical take-over."

"Much worse," Danielle promised. "As the white dwarf pulls chunks of the other star, it gains more and more matter, which, in turn, increases its monstrous gravitational pull. The white dwarf's growth reaches a tipping point when its gravitational pull inward becomes too high to balance the outward pressure. That destroys the equilibrium that held it intact."

"A blundered take-over," Jonathan acerbically pointed out.

"Photons emitted when white-dwarf explodes are detectable after billions of years. The supernovae always have similar imprints."

"Is there anything else I should know about them?" Jonathan's voice implied that he already had had enough.

"Never mind how it happened. Just think of supernovae as candles in the sky. The dimmer they appear, the farther they are from us."

"Nice," Jonathan said. "Candles in the sky sounds quite romantic."

She laughed. "You don't care at all about supernovae."

"Not if they are far enough," Jonathan admitted. "I care when you are too far."

"I won't be far tomorrow," Danielle whispered meaningfully.

LUCAS LODGE

Next morning, Danielle cast away any thought about candles in the sky, and set herself to finish reading the review paper before leaving for the weekend. She almost completed the task when Chi returned to their office, carrying a warmed lunch. Homey, yet unfamiliar spicy scents wafted from his bowl; their aroma percolated through the crammed office. Danielle sniffed, and her thoughts raced to the evening, when she would be with Jonathan. Done with the reading, she sorted scattered papers, went over her notes, and tossed the unimportant ones. Then she checked the mailbox; Green had not responded to her second email.

"See you on Monday," she said to Chi. He nodded.

At a quarter-to-five on Friday, every table in the Hungry Boson was occupied, and the teashop hummed with conversation. Relaxing as the line progressed, Danielle imagined Jonathan's surprise at getting fresh tarts. She sensed the fruity taste that would linger on his lips.

"How can I help?" Anne asked, offering Danielle a warm, welcoming smile.

Still focused on an image of herself and Jon licking the filling of a chocolaty éclair, Danielle pointed at golden tarts, devilishly sinful éclairs, and other tempting pastries she had not sampled yet. Ending up buying too much, she ambled home. In the driveway was an unfamiliar car. On the stairs, propped against the locked front-door, his head bent over an opened laptop, sat Jonathan Lerner. Bursting with joy, Danielle ran into his arms.

* * *

"Well?" she asked after they moved apart and were capable of talking.

Jonathan rolled to look at the bedroom he had just made love in. "A perfect dollhouse for a physicist." His stare shifted from a big poster of the Milky Way stretching its spiraling arms to a crumpled flowery quilt on the floor. "Where did you get that from?"

"Aunt Sophie." Danielle giggled. "Isn't it cute?"

"Sickeningly so. At least we don't have to look at it till tomorrow. We are going out tonight."

"Yeah?" Danielle purred contentedly. "How far out do you mean by 'out'?"

"About fifty minutes of reasonably fast driving. I made reservations for a dinner."

"It's a long drive back," she pointed out the obvious.

"We're staying there overnight." Jonathan planted a light kiss on Danielle's forehead. "I've booked us a cabin in an adjoining inn."

"You are not serious?"

"We have a car and everything is arranged. Just slip into that sexy dress we bought in Italy and pack whatever you need."

Danielle draped a sheet round her breasts, rose up and went to the cupboard. She returned with a burgundy-red dress spread over her shoulders and waistline. Jonathan's eyes twinkled, suggesting she come closer.

"I can't go out wearing it."

"It will spoil the view but you can put on underwear."

Danielle locked stares with Jonathan.

"Why not?" he asked. "You liked it in Italy."

"I still like it, but Hopeville isn't Florence or Rome." Danielle rolled her eyes. "I might meet someone belonging to the physics department."

"Afraid to set tongues wagging?" Jonathan whistled softly, and drew closer. "Will sleazy murmurs follow you in the physics department's corridors?"

Danielle shook her head and stepped out of Jonathan's reaching hands.

"Green might treat me differently if he gets a wrong impression before I have a chance to prove myself." Seeing Jonathan's puzzlement, she added, "Someone might see me and tell him." "You assume that your boss is an idiot."

"I know he isn't, but professors can be condescendingly polite or arrogantly insolent. Most of them look askance at women without even noticing how prejudiced they are."

"You should not let chauvinists like Crawford oppress you."

"It's easy to say that I shouldn't, but being a male, you will never understand the tiptoeing I have to do to be treated the same."

"The world is changing faster than ever, and even physics departments will have to change their attitude. Dress anyway you like and don't pay attention to schmucks. If you are competent, they are the ones who should be on the defense."

Danielle neither bothered to argue, nor cover her rear as she went to the cupboard. Jonathan watched her go to the bathroom and return wearing the tightly fitted crepe-de-chine dress. Her chin went up, her shoulders straightened, her posture changed.

"Do I look like a physicist?"

Jonathan's hands extended to hold the proud figure. Danielle quivered as his fingers slid on the silky material and explored her uncovered skin.

"For your eyes only," she whispered.

Jonathan's hands slid below her waistline.

"Or in front of strangers I won't ever see again." Her mouth brushed his lips and she pulled away.

"You are paranoid," Jonathan rasped.

"Just because I don't want to take chances that can damage my work?"

"That place is way too expensive for students, and the probability that you might bump into an unidentified physics professor in a small restaurant over sixty miles away from Hopeville is..." Jonathan finished the sentence with a shrug.

"Negligible," Danielle agreed, letting him pull her back. "What is this tiny restaurant called?"

"Lucas Lodge."

"Sounds familiar, although I can't recall where I've heard the name before."

"What about George Lucas and Star Wars?" Jonathan suggested.

She patted Jonathan's cheek. "Jane Austen's *Pride and Prejudice* would be closer. I have a copy somewhere in the living room if you're interested."

When Jonathan said "another time," Danielle laughed.

"You'd better get packing," he said unperturbed. "I liked the squashed éclairs, but I'm starving."

Danielle was soon ready. Jonathan drove fast, juggling through the suburban traffic, then racing through the open countryside. Too used to his driving to worry or protest, Danielle looked around. The farther we get away, the happier we are, she reflected, reminiscing about how she and Jonathan had recklessly roamed through Italy. Freedom, she thought and smiled, was many times more thrilling than a telltale diamond ring.

"Where are we?" Danielle asked when the car turned abruptly. They left the road for a paved lane in the woods.

"You will see in a few minutes."

Lucas Lodge was built in a clearing. Despite its unassuming façade, the two-story house bore an unmistakable mark of expensive simplicity. Jonathan parked the rented car between a Land Rover and a Jaguar and gallantly opened Danielle's door.

"Nice car," he commented about a slick silver Saab. Danielle's eyes followed his stare.

"Jon," she squealed, pointing at a sticker with King Solomon University's parking permit.

"I doubt it's within the budget of a physics professor," he said. The parked cars showed off a different sort of financial wellness.

They went inside, into a lobby decorated with oak paneling and furnished with dark leather sofas and armchairs. A demure receptionist welcomed them and gave Jonathan a key to their cabin. From the lobby a hostess glided forward, to accompany them into a dining room.

The spacious dining room brought to Danielle's mind an old-fashioned country manor whose family portraits and useless gadgets had been removed. The room's unpretentious elegance was enchanting, its opulent décor was restrained and understated, commanding and offering respect without snobbery. Graceful and

stylish in her burgundy-red silk-dress, Danielle followed the hostess walking between widely spaced tables. Merry yet muffled voices enlivened the genteel atmosphere, without merging into unpleasant hum. Passing a table with elderly couples, decorously dressed and apparently in very good mood, Danielle reflected that they knew how to make a good use of their money. She smiled at the thought.

"Hello, Danielle," Marjory Klein greeted her from the table.

Danielle's smile froze as she stopped and turned her face. Mrs. Klein's tailored clothes looked too dressy for Fitzgerald Hall; her evening dress was too elegant and expensive to wear anywhere. Drawn by glitter, she stared at Marjory's bejeweled neck. If the necklace was genuine, what the heck was Marjory doing in a physics department?

"How do you do?"

Danielle jerked at the familiar voice. Anne from the Hungry Boson was sitting one seat from Marjory, at the other side of an older man who looked vaguely familiar. She looked ladylike in a plain evening gown (everything seemed plain in the vicinity of Marjory's attire). Danielle wanted to say something polite and introduce Jonathan, but stood transfixed, her lips fixed in an idiotic smile. The hostess smiled apologetically, Jonathan nodded to the elderly couples, then wordlessly took Danielle's hand and led her away. At their table, Jonathan helped her with the seat.

"What happened?" he asked after the hostess left.

"The bejeweled woman is Marjory Klein, a senior secretary whose office is a few doors away from Green's. Rats, she saw me in that dress gawking at them."

Jonathan cupped her hands."Who was the other woman?"

"Anne from the Hungry Boson."

"It could have been much worse," he said soothingly.

"How can it be more awkward?"

"Meeting a physics professor from the university. As it is, Green is away, and I don't see any reason why Marjory would blabber about you to other people."

"She was already talking," Danielle muttered. "Haven't you seen her whispering to an old man who sat between her and Anne?" "She probably told her husband who you were," Jonathan said sensibly. Seeing that Danielle's face brightened, he added mischievously, "And to Anne."

"Rats."

"Speaking about Anne and the éclairs..." Jonathan said, his eyes dancing with laughter. Recalling how they ate the pastry she had squashed when she had clung to Jon, color rose on Danielle's face, deepening from red to burgundy, until it perfectly matched her dress. Yearning stirred again. She darted a forbidding glance at Jonathan, he chuckled and squeezed her hands. Danielle shook her head, Jonathan smiled. The charm was back, elusive yet tangible. The air around vibrated. Magic, they both felt, was still there, unspent.

They took their time to enjoy the entrees and the red Burgundy wine Jonathan ordered. The food was superb, the ambiance accommodating and uplifting. Jonathan's comments and Danielle's irreverent observations spiced up their conversation, recollections made them grin. Engrossed in the present, Danielle did not think about Marjory and Anne.

"Did you like it?" Jonathan asked over a coffee and a dessert they shared. His voice was earnest, his eyes keenly watched Danielle. The air around shimmered with anticipation.

"Every calorie." Danielle laughed, her eyes sparkling from the wine, her complexion pink under Jonathan's expressive look.

The sky was cloudless when they left the house. The crisp air carried little noises from the nightly woods.

"Look at the stars," Jonathan whispered.

Away from lights, the sky was strewn with bright, twinkling objects; entire worlds flickered like celestial candles. Feeling rapture, they hugged and looked at the firmament. Then, beaming with lust and happiness, Danielle and Jonathan went to find their cabin.

I hope you enjoyed this sample. The full book is available on